Closure Report Interim Status Container Storage Area Sauer - Sundstrand Facility Ames, Iowa

Prepared for

Sundstrand Corporation

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HLA Project No. 20603,22

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1.0 INTRODUCTION

This closure report has been prepared by Harding Lawson Associates (HLA) for the Sundstrand Corporation (Sundstrand) and presents a description of the final closure program for the former designated drum storage area (DDSA) and the interim status container storage area (ISCSA) that was operated prior to 1983 at the Sauer-Sundstrand Company (Sundstrand) plant located at 2800 E. 13th Street, Ames, Iowa.

1.1 Purpose

The purpose of this closure report is to certify environmental regulatory compliance with the interim status closure requirements for storage of hazardous waste in containers as described in Title 40, Code of Federal Regulations (CFR), Part 265. This report has been prepared to provide documentation and description of clean closure procedures.

1.2 Scope

The activities described in this document are for the clean closure of the DDSA and the ISCSA operated by Sundstrand prior to 1983. Figure 1, Site Vicinity Map, Figure 2, Site Location Map, and Figure 3, Site Plan, illustrate the facility location and general layout. The locations of the DDSA/ISCSA are illustrated in Figure 4, Boundary of Remediation Area. A physical description of the DDSA and ISCSA are presented in Section 2.1. Clean closure has been performed in accordance with the approved closure plan requirements for the DDSA/ISCSA, dated May 14, 1991. Hazardous waste activities at the plant were conducted under U.S. Environmental Protection Agency (EPA) Identification Number IAD056736184. The closure performance standard of this closure plan addresses surface units, surface soils and subsurface soils above the saturated zone. The issue of groundwater quality is currently being investigated in a RCRA Facility Investigation (RFI) and is not addressed in this closure report. The RFI is being conducted as part of a Final Administrative Order in Consent, dated March 19, 1991, as entered into by the U.S EPA, Sundstrand Corporation, Sauer-Sundstrand Company, and Susa Holding Company of Story County, Inc. (Docket VII-91-H-009).

Sundstrand no longer owns or operates this plant. Therefore, this closure document does not address hazardous waste management activities/units by the current owner, Sauer-Sundstrand, since 1983. The closure performance standard of the closure plan addressed surface units, surface and subsurface soils above the water saturated zone.

2.0 FACILITY DESCRIPTION

Sundstrand opened the Sundstrand Hydro-Transmission plant in Ames, Iowa, in 1972. Since its opening, the plant has manufactured hydraulic transmissions for use in various types of vehicles and equipment (primarily farm machinery and construction equipment). Halogenated volatile organic chemicals (VOCs). including methylene chloride, 1,1,1trichloroethane (TCA), and perchloroethylene (PCE), were used for cleaning and degreasing at various stages of the manufacturing process, resulting in the generation of hazardous wastes. In 1989, Sundstrand sold the plant to the Susa Holding Company of Story County, Inc., which currently operates it through the Sauer-Sundstrand Company.

2.1 Description and History of the DDSA/ISCSA

Prior to 1978, containerized solvent waste and waste oils were stored in a designated drum storage area (DDSA), measuring approximately 6 feet by 30 feet, located south of the plant building (Figure 3 and Figure 4). Drums were stored on wooden pallets resting on soil; the area was not paved and lacked spill containment structures. The DDSA/ISCSA areas were used to store drums of hazardous wastes from 1972 through 1982 by Sundstrand. In September 1982, use of the DDSA was discontinued when an engineered storage facility was constructed in another area of the plant. Wastes stored in this area included spent methylene chloride, PCE and TCA (waste code F001), and waste oils (RCRA nonhazardous). In 1983, Sundstrand began closure of the DDSA/ISCSA.

2.2 Previous Investigation

Subsurface investigations have been performed to evaluate the distribution of chemical bearing soil in the DDSA/ISCSA.

In July 1983, analyses of shallow soil samples collected in the DDSA/ISCSA area indicated that methylene chloride was present in the soil. Approximately 28 cubic yards of soil were removed from this area and disposed offsite in a hazardous waste landfill. Analysis of additional

subsurface soil samples indicated the presence of TCA and PCE and traces of methylene chloride.

A Remedial Investigation (RI) consisting of a phased soil and groundwater investigation was performed between July 1985 and March 1986 to determine the extent of VOCs beneath the DDSA. The results of the RI were produced in a report entitled Remedial Investigation Study, Ames, Iowa, Sundstrand Corporation, Hydro-Transmission Division, Final Report, dated October 1986 (HDR, 1986). During the RI, 85 soil borings were drilled at and downgradient of the DDSA/ISCSA area. Twenty of the soil borings were completed as 2 inch diameter groundwater monitoring wells. Figure 3 shows the locations of the 20 soil borings which were subsequently converted to monitoring wells. Additional engineering evaluation related to excavation and treatment of chemical-bearing soil was also conducted at that time through a soil vapor study in the area (HDR, 1989c).

2.3 Site Geology

The DDSA/ISCSA subsurface soils in the remediation area graphically depicted in Figure 5, Stratigraphic Profile A-A', a geologic crosssection which illustrates general DDSA/ISCSA stratigraphy to a depth of approximately 90 feet. Additional cross-sections are illustrated in Figures 6, 7, 8, and 9. A layer of clay fill material 3 to 8 feet thick overlies a brown silty clay layer 8 to 15 feet thick. The brown clay is underlain by a hard gray clay layer found at depths of 10-25 feet below ground surface which contains occasional isolated, discontinuous fine sand layers. A fine sand layer underlies the gray clay. Discontinuous, fine sand lenses are randomly encountered at the base of the brown clay unit. Water-level measurements from groundwater monitoring wells indicate that the gray clay layer serves as a confining layer (aquitard) isolating a shallow upper aquifer from the lower sand aquifer. Depth to the piezometric surface (groundwater) varies seasonally from 6 to 9 feet below ground surface, as illustrated in Figures 10, 11, and 12. Groundwater flow in the upper aquifer is toward the south, as illustrated in Figure 13, Piezometric Surface Map.

3.0 GENERAL CLOSURE REQUIREMENTS

3.1 Closure Performance Standard - 40 CFR 265.111

To meet the requirements of 40 CFR 265.111, Closure Performance Standard, the DDSA/ISCSA has been closed in a manner that:

- Minimizes the need for further maintenance
- Controls, minimizes, or eliminates escape of hazardous constituents to the ground, surface waters, or atmosphere
- Complies with all necessary closure requirements in 40 CFR Part 265.

As described in Section 4.0, Sundstrand's intent has been to achieve clean closure of the DDSA/ISCSA area. Clean closure has been based on an evaluation of the extent of chemical-bearing soil and the attainment of target cleanup levels for TCA and PCE. This approach has eliminated the need for further maintenance after closure and minimized or eliminated the release of hazardous constituents. In addition, the measures taken during remediation resulted in minimal exposure to hazardous constituents while the unit was being closed (e.g., development and implementation of Health and Safety Plan, control of air emissions).

3.2 Description of Final Closure- 40 CFR 265.112(b)

The DDSA/ISCSA areas were used to store drums of hazardous wastes from 1972 through 1982 by Sundstrand. The procedures described in this report comprise final closure of the DDSA/ISCSA. This closure has been conducted in accordance with the approved closure plan and all associated amendments as referenced in Appendix B.

3.3 Maximum Extent of Operation - 40 CFR 265.112(b)(3)

The DDSA was an outdoor storage area measuring approximately 6 by 30 feet. The ISCSA was an area that may have been used for

temporary or interim storage of wastes from the DDSA. PCE and TCA concentrations in soil within the ISCSA reflect possible interim storage. The approximate location of the storage area is shown on Figure 4. The DDSA was used from approximately 1972 to 1978 to store drums of hazardous wastes on wooden pallets directly on the ground surface. In July 1978, the DDSA was paved with asphalt and used for hazardous waste storage through 1982. The total quantity of wastes that were stored within the DDSA or ISCSA areas is unknown. Sundstrand records indicate that approximately 275 gallons of waste PCE was temporarily stored in the area during a six-month period in 1972. Records indicate that between November 1980 and September 1982, only PCE and TCA were stored in this area.

3.4 Certification of Closure

3.4.1 Closure Certification Statement-40 CFR 265.115

This report is required to contain a signed Closure Certification Statement per 40 CFR 265.115. The Closure Certification Statement is included in Appendix A.

3.4.2 Statement of Facility Status After Closure

The Sundstrand plant was sold in 1989 to Susa Holding Company (Sauer-Sundstrand Company). Sauer-Sundstrand has been responsible for all solid waste management units at the facility since the sale in 1989, and as the current owner-operator of the facility, shall retain such responsibility as part of the sale agreement with the Sundstrand Corporation. Sundstrand Corporation retains responsibility only for the DDSA/ISCSA areas. After closure of the DDSA/ISCSA areas, the current facility management will be responsible for all solid waste management units at the plant.

3.4.3 Amendment of Closure Plan - 40 CFR 265.112(c)

The Interim Status Container Storage Area modified closure plan, dated May 14, 1991 was given final approval by the U.S. EPA in a letter, dated May 11, 1992. A copy of this letter is included in Appendix B.

On October 26, 1992, a request for an extension to the time allowed for closure of the DDSA/ISCSA was presented to U.S. EPA. A letter received from the U.S. EPA, dated December 1, 1992, granted a closure time extension to October 22, 1993.

On March 1, 1993, a request for modification of the soil sampling plan of the approved modified closure plan was forwarded to U.S. EPA Region VII. Approval of the request for the modified soil sampling plan (statistical soil sampling locations) was received from U.S. EPA in a letter, dated March 30, 1993.

On October 18, 1993, a request for an extension to the time allowed for closure of the DDSA/ISCSA was presented to U.S. EPA because of severe schedule delays caused by poor weather conditions at the facility. A letter received from the U.S. EPA, dated November 1, 1993, granted a closure time extension to December 17, 1994.

Copies of these communications from U.S. EPA are included in Appendix B.

4.0 CLOSURE PROCEDURES

4.1 Overview of Closure Procedures

Soil containing TCA and PCE in excess of the cleanup levels in the DDSA/ISCSA area was remediated using in situ aeration. In situ aeration was conducted by mechanically tilling the soil until residual VOCs were below the cleanup levels. Once the soil had been remediated, it was excavated and temporarily staged until the remediation process was completed. Upon completion of the remediation process, staged soil was returned to the open excavation.

4.2 Removal of Hazardous Waste Inventory

The storage of hazardous waste in the DDSA/ISCSA areas were discontinued in September 1982. All stored drums were properly removed from the area to a licensed hazardous waste disposal facility at that time.

4.3 Soil Cleanup Levels

The approved DDSA/ISCSA closure plan for the DDSA/ISCSA established clean closure soil cleanup levels to be 0.2 parts per million (ppm) for PCE and 3.4 ppm for TCA.

4.4 Description of In-Situ Soil Remediation

Based on the results of previous investigations of the DDSA/ISCSA, two distinct areas of chemical bearing soil in the vicinity of the DDSA/ISCSA area were identified where the total combined concentration of TCA and PCE was greater than or equal to 2 ppm (Plate 3) (HDR, 1986). The total surface area of the affected soil was determined to be less than 27,000 square feet.

Based on the results of previous investigations, proposed remediation of the DDSA/ISCSA consisted of in-situ aeration of the affected soil. As approved by the U.S. EPA, the soil was mechanically aerated (tilled) using a sixteen row chisel-type plow pulled by a large farm tractor. Tilling facilitated volatilization of VOCs and promoted oxygen transfer necessary for enhancement of microbial activity. This process

was continued until the concentrations of VOCs in the soils were determined to be below the cleanup levels. The effectiveness of soil remediation was monitored by independent laboratory analysis (Method 8010) of soil samples from all treatment zones.

Tilling was accomplished in 12 inch depth increments (or lifts). Initially, the upper 12 inches of soil was aerated. Once VOC concentrations in the first 12-inch increment were determined to meet cleanup levels, the upper 8 inches of the soil was excavated and temporarily staged. Removal of only the upper 8 inches of soil prevented inadvertent removal or disturbance of unremediated soil below the initial 12-inch treatment lift. The process was then repeated in 12-inch lifts until soil remediation was completed. The remediated soil in each lift was loaded by a bulldozer into a dump trailer and transported to the staging area located adjacent to the DDSA/ISCSA excavation (see Figure 15, Final Ground Elevation Survey).

4.4.1 Maximum Extent of Contaminated Soils

During previous investigations of the DDSA/ISCSA, some of the laboratory detection limits used in PCE analysis exceeded the proposed cleanup level and, therefore, the total amount of chemical-bearing soil above the proposed cleanup levels could not be accurately estimated. Because of this uncertainty, soil samples were collected around the perimeter of the DDSA/ISCSA to evaluate whether additional soil treatment was required. Soil boring locations are shown in Figure 16, Confirmatory Soil Boring Locations. Soil borings were drilled to the water table using hollow-stem auger drilling equipment. Borings were installed in those locations where previous investigations did not fully define the extent of soil with chemical concentrations above the proposed cleanup levels. The borings were designated sequentially as SB-1 through SB-10. Samples were collected at depths of 2, 4, and 7 feet below ground surface and analyzed for PCE using EPA Test Method 8010. Analytical results for these soil samples are included in Appendix C of this report along with associated chain-of-custody

documentation. Figure 17, Limit of Excavation, illustrates the PCE concentrations in soil based on the results of this study.

Once soil sampling was completed, the lateral limits of the soil remediation area were determined and field surveyed. These survey coordinates were used to maintain the perimeter of the treatment area as aeration and excavation progressed.

4.4.2 Treatment Area Design and Final Configuration

Once the lateral extent of the chemical-bearing soil requiring treatment was established, a 6 inch high soil berm was constructed around the perimeter of the treatment area to provide runon and runoff control, as described in Section 4.4.4. The treatment area was fenced and posted with warning signs to prevent unauthorized access. A buffer zone approximately 12 feet wide was maintained between the berm and the outer limit of the soil area requiring treatment which permitted the side walls of the excavation to be maintained at a 1.5 to 1 (vertical to horizontal) slope as the excavation progressed. Sloping was necessary to maintain slope stability and provide equipment access.

A final grading drawing for the remediation area is presented in Figure 15. This drawing illustrates the final configuration and topographic elevation of the completed excavation area. The remediated soil pile is shown east of the excavation area. Volumetric calculations determined that approximately 12,700 cubic yards of soil were remediated and removed from the excavation in 12 lifts. The 13th lift was remediated but left in place. Figure 15 illustrates the final elevation mapped at the top of the 13th lift. The survey was conducted by Stumbo and Associates - Land Surveying, a registered Iowa land surveyor.

4.4.3 Treatment Area Construction Sequence

Once the lateral extent of the soil treatment area was confirmed and field surveyed, construction and remediation operations proceeded as follows:

- Mobilized field crew and equipment on August 3, 1992.
- Constructed clean soil berm around treatment area, allowing a 12 foot buffer zone for sidewall cutback.
- Began mechanical aeration and remediation of lift 1 by tractor plowing/disking on August 18, 1992.
 - During the 1993 remediation season, after several days of disking and field screening of soil samples with a field PID, four soil sampling locations were selected using a U.S. EPA approved random number generator table. The number of samples required to verify that appropriate cleanup measures were successfully completed was established statistically, according to approved methodology presented in Chapter Nine of U.S. EPA Guidance Document, SW-846. Sampling grid cells were located at 50 ft. lateral intervals.
- Once the analytical results for all four soil samples were confirmed to be below the approved cleanup levels, the upper 6 to 8 inches of the treated soil was removed (known as a lift) and temporarily staged in the treated soil area. Mechanical aeration of the upper 12 inches of soil was continued (i.e., the 4 inches of treated soil that remained from the previous lift plus the next 8 inches of soil to be treated in the subsequent lift).
- The process was continued through 13 full lifts until the DDSA/ISCSA area was remediated. The 13th lift was remediated but not removed since soil below the lift was found to have PCE and TCA levels below cleanup levels. Confirmatory soil samples were collected from below the 13th lift and analyzed to confirm that cleanup levels had been attained in the DDSA/ISCSA area. Analytical results are provided in Appendix C. Remediation activities were completed in December 1993.

- Backfilled remediated soils into the excavation; regraded and re-seeded to meet preremediation conditions and closure plan requirements. The regraded areas will remain undeveloped and will not contain physical structures such as buildings, sidewalks, unpaved parking lots.
- Prepared and submitted closure certification report.

4.4.4 Run-on and Runoff Control

As described in Section 4.4.2, a 6-inch high compacted clean soil berm was constructed around the perimeter of the treatment area to provide run-on and runoff control. The berm was planned to contain the approximately 3 inches of rainfall from a 25-year, 24-hour storm event. However, during May to September, 1993 a number of rainfall events, some in excess of the 25-year, 24-hour storm event occurred in the area. Once the first lift of soil was excavated, additional containment was provided by the excavation. Water in the excavation was managed by allowing shallow water to accumulate in the low-lying north and south areas of the excavation. The accumulated water was occasionally pumped through spray nozzles and directed back onto the soils being treated in the excavation. Due to the heavy rainfall during May to September 1993, the remediation program was severely hampered and a request for a closure deadline extension was made to and approved by the U.S. EPA Region VII. Figures 14a through 14d, Hydrograph and Precipitation Data, for the period of June 4 to December 12, 1993 illustrate rainfall amounts along with corresponding water level measurements recorded in piezometers P-1 through P-2 in the remediation area. Meteorological data for this period is shown in Figure 18, Central Iowa Weekly Precipitation, and Figure 19, Central Iowa Area Precipitation for 1988-1993. This data was provided by the National Climatic Data Center in Asheville, North Carolina and on-site project data.

4.4.5 Confirmatory Sampling and Analysis Requirements

Soil sampling and analysis was necessary to confirm the lateral limits of the soil treatment area and to verify that soil in each lift had PCE and TCA concentrations below the established cleanup levels. Sampling locations and methodologies to define the limits of the treatment area are described in Section 4.4.1. Figure 16, Confirmatory Soil Boring Locations and Figure 17, Limits of Excavation, illustrate soil sampling locations and zones of elevated PCE concentrations in the treatment area. Analytical data and chain-of-custody documentation for these borings are included in Appendix D.

During treatment of each lift, four (4) discrete soil samples were collected within the treatment zone when PID instrument readings indicated that treatment was complete. Soil sampling locations for all 13 treatment lifts were selected using a U.S. EPA approved methodology. The methodology consisted of selection of sampling locations by the use of a random number generator computer program. The sampling population consisted of a total of 46 possible points per lift. Each sampling point was located near the center of each of the 46 grid cells (grid cells measured 50 feet x 50 feet). Cells were marked along the perimeter of the treatment area using the grid index coordinates shown in Figure 20, Sampling Grid Location Map. Soil samples were collected by an HLA geologist or engineer using a hand trowel and placed in labeled glass jars. The jars were completely filled to prevent potential loss of volatile constituents to the headspace. Samples were packed in a cooler with ice, delivered to the analytical laboratory (CBC Environmental Laboratories, Inc.) within 24 hours, and analyzed for PCE and TCA using EPA Test Method 8010. All soil samples were delivered to the laboratory with chain-of-custody documentation. Analytical results and sample chain-of-custody documents are included in Appendix C. 24-hour turnaround reporting time was used so that soils

that had been treated to below cleanup levels could be promptly removed from the treatment area, weather permitting.

4.4.6 Overall Remediation Program Management

The soil remediation program was managed and supervised by an independent registered engineer. The facility was inspected a minimum of once a week to monitor project remediation and sample collection activities. Daily DDSA/ISCSA operation activities included inspections performed by designated HLA personnel. All inspections and field activities were documented in writing using field logbooks and included the following information:

- Date and time of the inspection
- Inspector's name and signature
- Direct instrument readings daily (soil sample headspace and workzone air measurements)
- Water depths in the piezometers, if any, in the excavation, and
- Other conditions or comments as appropriate.

4.4.7 Quality Assurance/Quality Control

The quality assurance/quality control (QA/QC) of remediation efforts were maintained as follows:

- All excavation and construction were supervised by a professional engineer registered in the state of Iowa
- The effectiveness of the treatment operations in meeting proposed cleanup levels was verified by confirmatory soil sampling and analysis by an independent laboratory
- All sampling and analytical activities were conducted in accordance with guidelines established in SW-846, Evaluation of Solid Wastes, Physical and Chemical Methods, 3rd edition, 1986.

4.5 Workability Limits to the Excavation

During the 1993 soil remediation program, tilling and excavation activities were greatly impeded by heavy rainfall, as previously described. Due to the unusual rainy season, ponded rainwater accumulated in the northern and southern areas of the open excavation. Ponded water in these two areas persisted during most of the site remediation program. The ponding of water is believed to have contributed to high soil moisture content.

Since piezometric measurements for piezometers PZ-1 through PZ-4 indicated the piezometric surface at depths 1 to 3 feet below the excavation floor (13th Lift) (Figures 10, 11, 12 and 13), it was decided to investigate why the soil zone above the piezometric surface was consistently too wet for soil workability. Since the approved remediation program consisted of soil aeration by tilling, soil workability required soil moisture content to be low enough to allow tilling equipment (tractor and plow) to work the soil. As illustrated in Figure 22 and Figure 23, Degree of Saturation vs Depth Diagrams for Grid 10 and Grid 46, respectively, soil moisture saturation levels above 70 percent were encountered in the soil zone above the piezometric surface. The soil could not be further worked or tilled. The tilling equipment could not properly function at these highly saturated soils.

The secondary purpose of the investigation was to evaluate the soil above the piezometric surface to determine if cleanup criteria had been met.

Conclusions

- Based upon the laboratory test data and published information, the base of the excavation (maximum extent of excavated soil, Figure 6), was within the zone that soil can be expected to be saturated by groundwater due to the effect of capillary rise.
- The piezometric surface in the DDSA/ISCSA fluctuated approximately 2 feet in elevation from 3/88 to 4/92 as

measured in groundwater monitoring wells MW-5 and MW-6S (Figure 10).

 The final DDSA/ISCSA excavation floor elevation prior to backfilling is within 0.5 to 1 feet of the average piezometric surface measured in piezometers from 6/4/93-12/10/93 (Figure 12).

4.6 Cleanup Confirmatory Soil Investigation and Analytical Results

4.6.1 Confirmatory Soil Analytical Sampling Depth Rationale

Upon remediation of Lift 13 and determination that deeper tilling and excavation was not feasible due to wetted soil conditions, an investigation of the soil for contamination underlying the DDSA/ISCSA excavation floor was conducted. The investigation consisted of a total of six (6) soil borings at the locations shown in Figure 21. Boring locations were randomly selected using the approved random number generator method from a total population of sampling grid locations confined to those grid cells in the north and south areas of the excavation which had been ponded during much of the 1993 remediation program season. The statistical grid cell sampling population consisted of grid cells 1,2,3,4,5,6,7,8,9,10,11,12,15,16,22,23,43,44,45, and 46 (Figure 21). A total of four (4) equivalent soil lifts (12 inches thick), or 48 inches, below remediated Lift 13 were possible above an average water table depth of 6-8 feet below the original grade (Figures 9, 10, 11, and 12). If soil remediation could have continued deeper, each successive soil lift analyzed below Lift 13 would have had the normal 4 statistical soil samples collected and analyzed from each of the 4 lifts for a total of sixteen (16) discrete soil samples to be analyzed for TCA and PCE per the approved closure soil sampling plan.

Soil borings were drilled by a truck-mounted, hollow stem auger drilling rig. Soil samples were collected using a carbon steel, split-spoon sampler. All necessary sampling equipment including drill augers and split-spoon samplers, was properly decontaminated prior to use. Laboratory analyses were conducted on the soil samples by CBC Environmental Laboratory, Inc. of Oakcreek, Wisconsin.

4.6.2 Confirmatory Analytical Results

A total of sixteen (16) soil samples were analyzed for TCA and PCE from 4 equivalent sampling events. Analytical results are summarized in Table 3, Results of Chemical Analyses of Soil Samples. Laboratory reports are included in Appendix D.

The following conclusions were determined concerning the remaining DDSA/ISCSA soil zones above the piezometric surface:

- Statistical soil sampling and analyzes (SW-846 Methodology) for TCA and PCE constituents in the north and south areas of the excavated area revealed concentrations below cleanup level requirements of 3.4 ppm and 0.2 ppm respectively. A total of four randomly selected sampling events were conducted in these areas to the existing piezometric surface. Soil samples were collected at lift-equivalent depth intervals from 8 to 32 inches below excavation floor grade to the water table.
- TCA was not detected in any of the 16 confirmatory soil samples. PCE was detected in only 1 soil sample at a concentration of 0.094 ppm at a depth of 24-32 inches below floor grade in grid sampling cell #44. It is concluded that the soil below Lift 13 and above the water table is not contaminated above the cleanup objectives of 0.2 ppm for PCE and 3.4 ppm for TCA.
- The DDSA/ISCSA area has been fully remediated in accordance with the approved closure plan.

4.7 Decontamination of Facility Equipment

An equipment decontamination area was used adjacent to the west side of the remediation area near grid sampling cell number 15. All

remediation and sampling equipment was cleaned by steam cleaning or high pressure water washing. Liquid rinsates were collected and pumped into the treatment excavation and tilled into the soil during the soil remediation program.

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TABLES

Table 1. Soil Classification Test Results Summary Sauer-Sundstrand Ames, Iowa DDSA/ISCSA Closure

Sample No.	Depth (ft)	ASTM Soil Classification	Natural M.C. (%)	Liquid Limit (%)	Plasticity Index (%)	% Passing #200 Sieve	
10	1.5	CL—Sandy Lean Clay	24.7	32	12	62	
10	4.0	CL—Lean Clay	28.1	44	24	85	
46	1.6	CL—Sandy Lean Clay	14.8	25	10	5 <i>7</i>	
46	4.1	CL—Sandy Lean Clay	23.8	33	10	66	
46	6.6	CL—Lean Clay	25.5	45	24	82	

Table 2. Results of Geotechnical Analysis of Soil Samples DDSA/ISCSA Closure

Sauer-Sundstrand Facility Ames, Iowa, December 21, 1993

						Den	sity			Atterberg Limits				
Grid Sampled	Sample Interval	Portion of Sampled Interval	Sample Diameter	Sample Height	Water Content (%)	Wet (lbs/cf)	Dry (lbs/cf)	Void Ratio	Saturation (%)	LL	PL	Pl	Hydro- meter* (%)	Soil Classif- ication
10	3 ″— 33″	Тор	2.85"	5.69"	14.0	124.6	109.3	0.507	73					
10	3″—33″	Middle	2.85″	5.69"	24.7	117.2	94.0	0.753	87	32	20	12	63	CL
10	3″33″	Bottom	2.85"	5.69"	26.9	113.5	89.4	0.843	84	•				
10	33″—63″	Тор	2.85"	4.63"	27.7	119.5	93.6	0.803	93					
10	33″—63″	Middle	2.85"	1.06"	28.1	125.1	97.7	0.727	100	44	20	24	85	CL .
10	33″63″	Bottom	2.85"	5.69"	24.3	124.6	100.2	0.684	96					
46	4"-34"	Тор	2.85"	3.63"	18.2	130.2	110.2	0.489	98					
46	4"-34"	Middle	2.85"	3.81"	14.8	133.8	116.6	0.408	95	25	15	10	56	CL
46	4"-34"	Bottom	2.85″	1.63"	17.6	131.5	111.8	0.468	99					
46	34"-64"	Тор	2.85"	5.69"	13.8	137.8	121.1	0.376	98					· · · · ·
46	34"64"	Middle	2.85"	2.63"	23.8	120.2	97.1	0.716	89	33	23	10	66	CL
46	34"—64"	Bottom	2.85"	5.69"	24.9	116.5	93.2	0.788	84					
46	64" — 94"	Тор	2.85"	4.63"	27.3	121.9	95.8	0.739	99					
46	64"—94"	Middle	2.85"	5.69"	25.5	120.2	95.8	0.739	92	45	21	24	83	CL
46	64"—94"	Bottom	2.85"	5.44"	24.5	124.1	99. 7	0.671	97					

^{*} Percent of total sample passing #200 sieve CL - Clay, as defined by the Unified Soil Classification Scheme lbs/cf - pounds per cubic foot

Table 3. Results of ISCSA Chemical Analysis of Soil Samples DDSA/ISCSA

Sauer-Sundstrand Facility Ames, Iowa, December 22, 1993

Sampling Event	Sample Grid Location	Depth	1,1,1 TCA (ppm)	PCE (ppm)
1	3	0"—8"	ND	ND
1	7	0"—8"	ND	ND
1	40	0"—8"	ND	ND
1	46	0″—8″	ND	ND
2	3	8"—16"	ND	ND
2	43	8"—16"	ND	ND
2	. 44	8"—16"	ND	ND
2	46	8″—16″	ND	ND
3	3	16"—24"	ND ·	ND
3	44	16"—24"	ND	ND
3	45	16"—24"	ND	ND .
3	46	16"—24"	ND	ND
4	3	24"—32"	ND	ND
4	44	24"—32"	ND	0.094
4	45	24"—32"	ND	ND
4	46	24"—32"	ND	ND

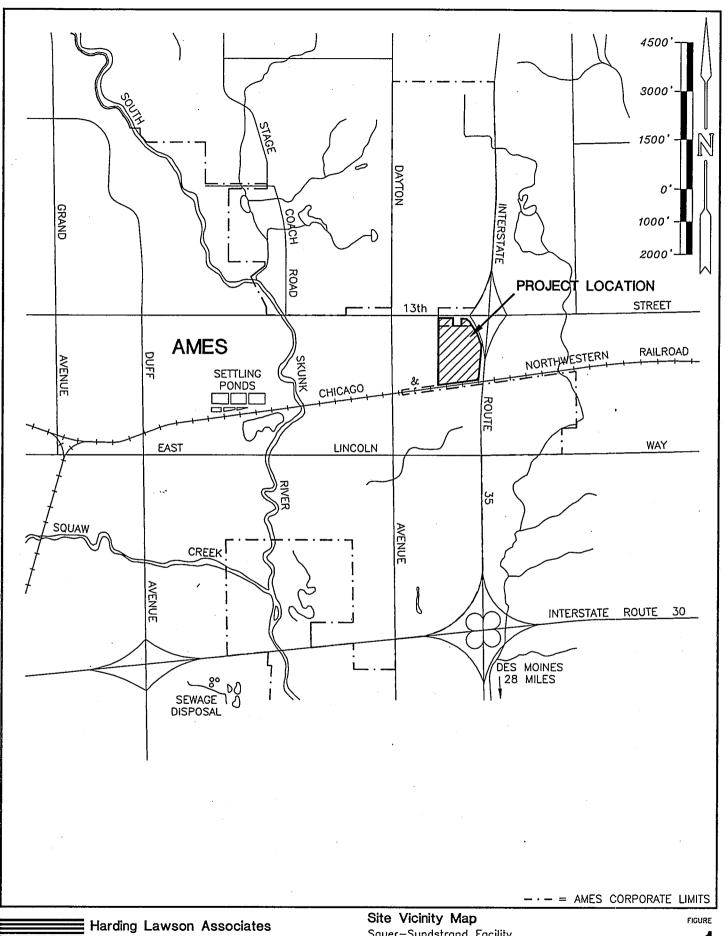
ppm - Parts per million TCA - Trichloroethane

PCE - Tetrachloroethylene

ND - Not detected at a lower detection limit of 0.050 ppm

FIGURES

SUNDSTRA/0808942J.WP . August 12, 1994



Engineering and Environmental Services

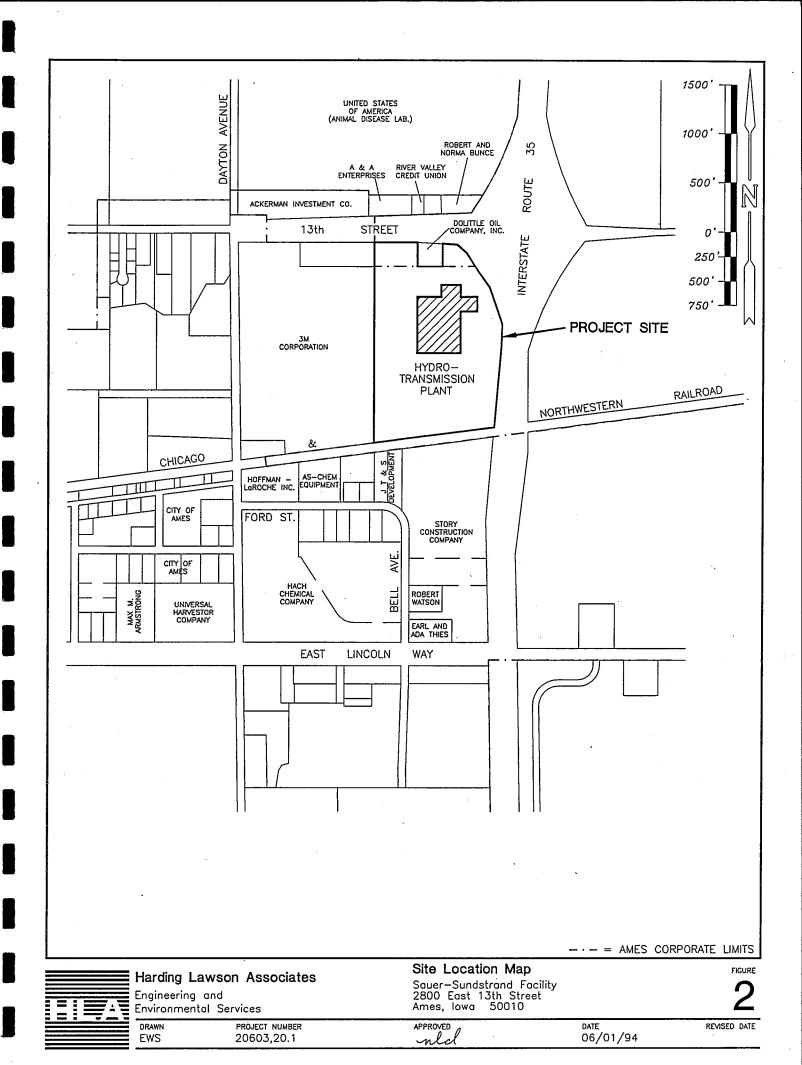
> PROJECT NUMBER 20603,20.1

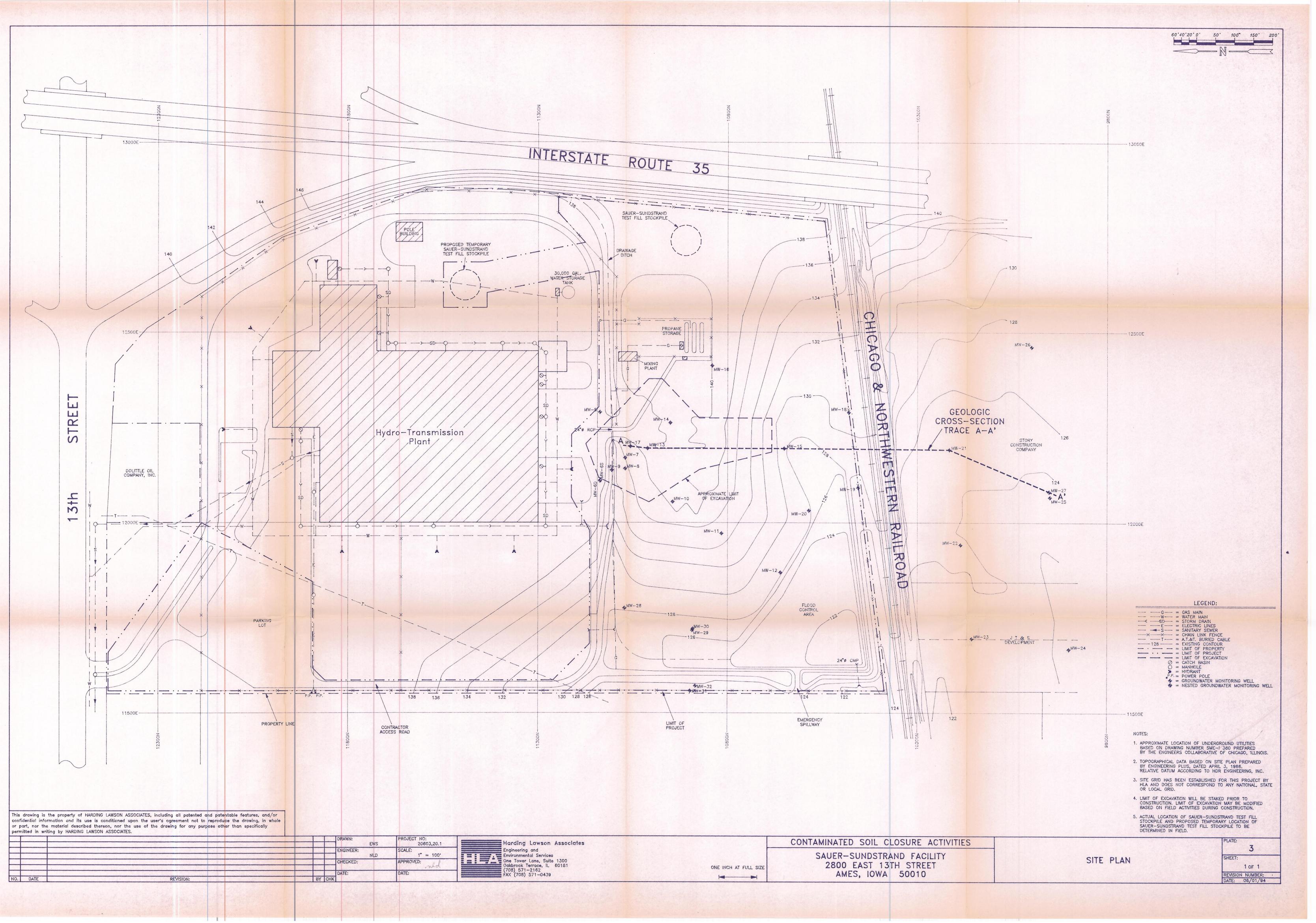
Sauer—Sundstrand Facility 2800 East 13th Street Ames, Iowa 50010

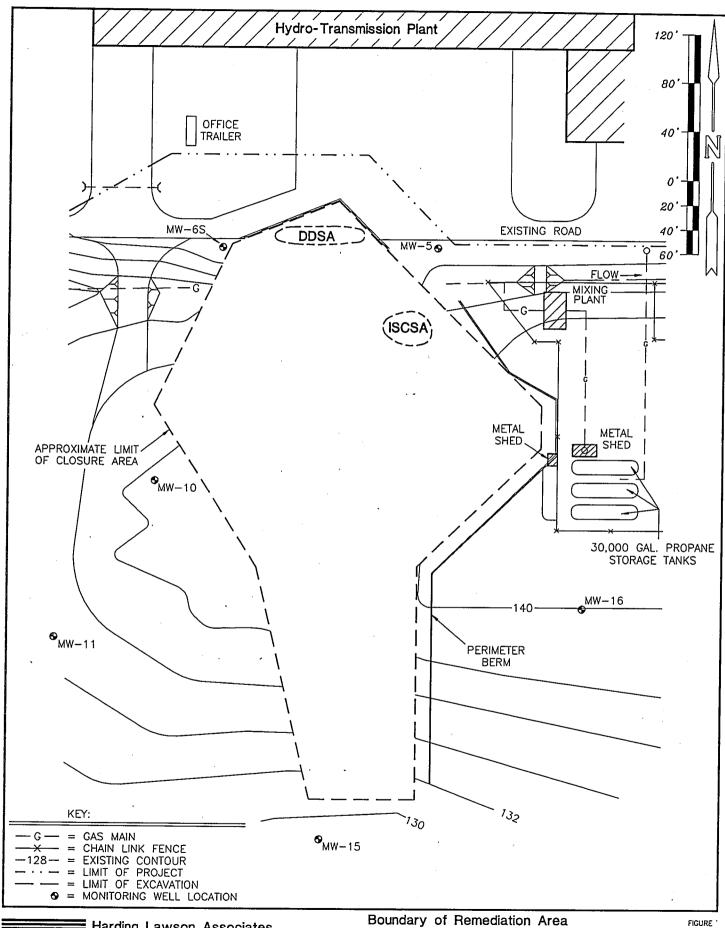
DATE 06/01/94

REVISED DATE

APPROVED









Environmental Services

Engineering and

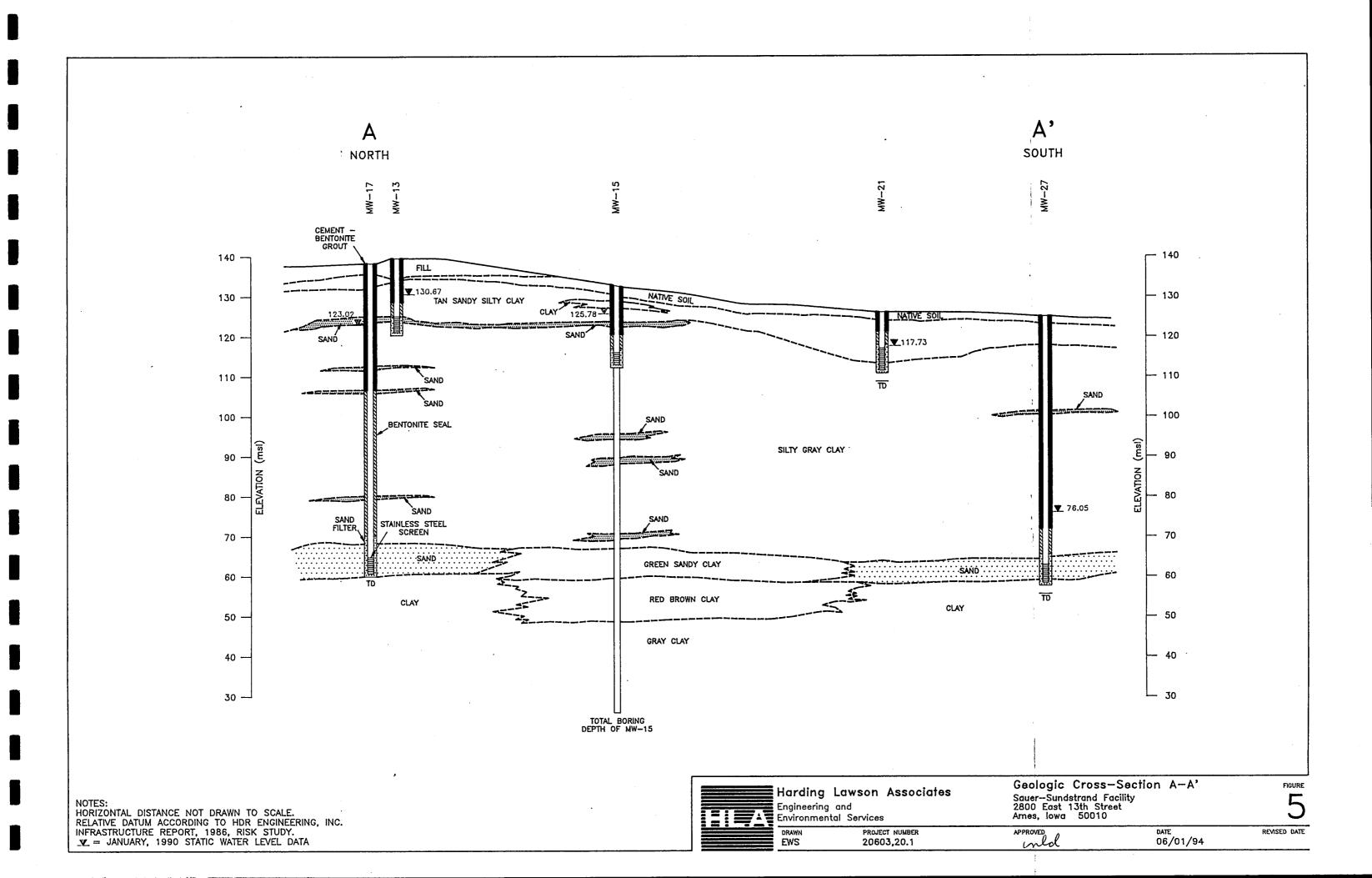
Sauer—Sundstrand Facility 2800 East 13th Street Ames, Iowa 50010 APPROVED

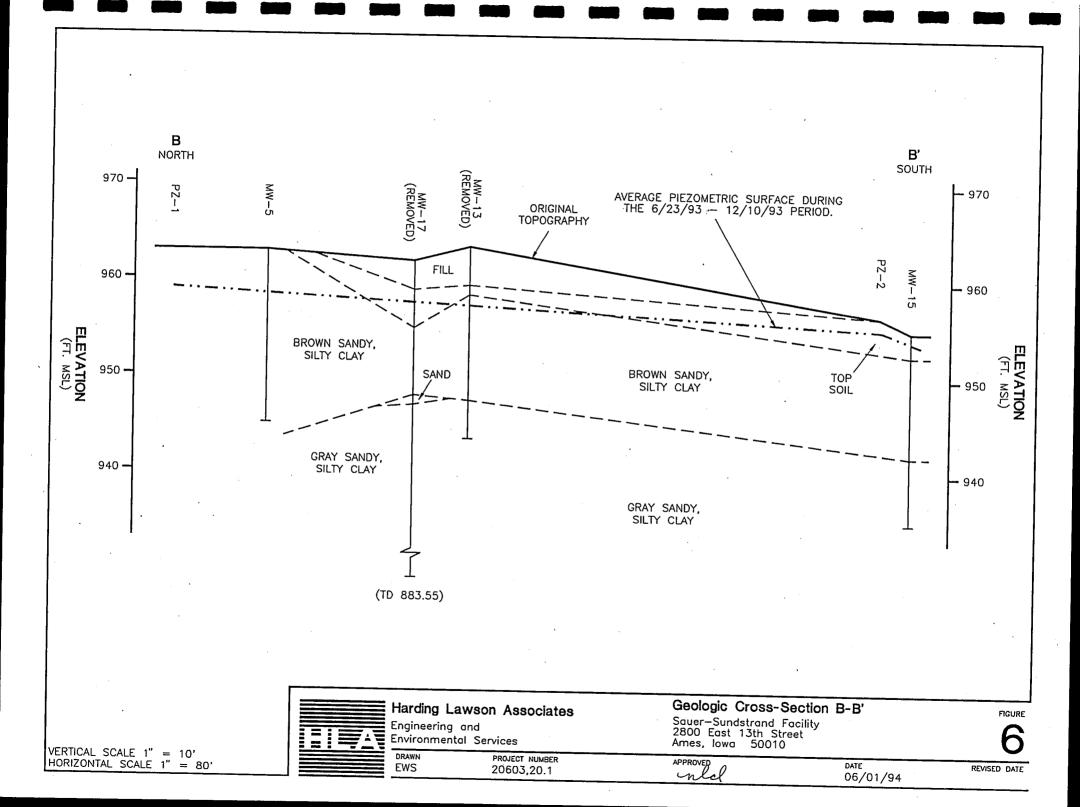
REVISED DATE

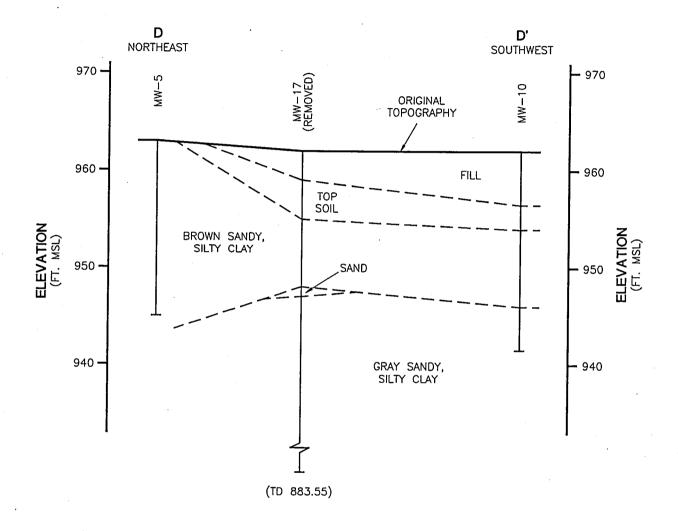
DRAWN **EWS**

PROJECT NUMBER 20603,20.1

DATE 06/01/94







VERTICAL SCALE 1" = 10' HORIZONTAL SCALE 1" = 80'



Harding Lawson Associates

Engineering and Environmental Services

DRAWN PROJECT NUMBER EWS 20603,20.1

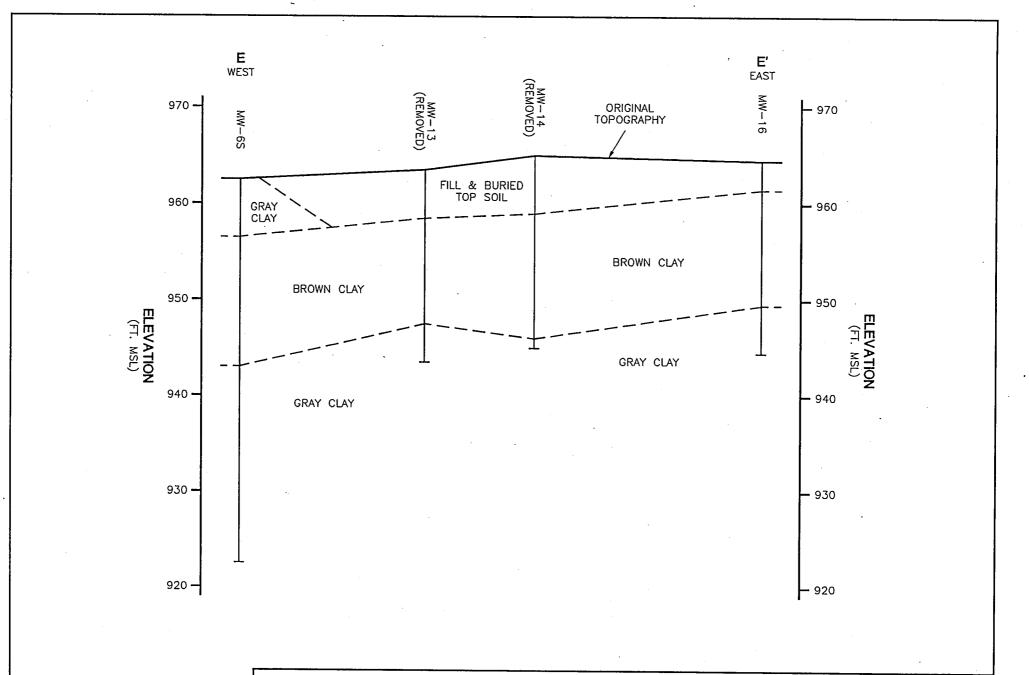
Geologic Cross-Section D-D'

Sauer—Sundstrand Facility 2800 East 13th Street Ames, Iowa 50010 FIGURE

7

REVISED DATE

APPROVED DATE 06/01/94





Engineering and Environmental Services

Geologic Cross-Section E-E'

Sauer—Sundstrand Facility 2800 East 13th Street Ames, Iowa 50010

FIGURE

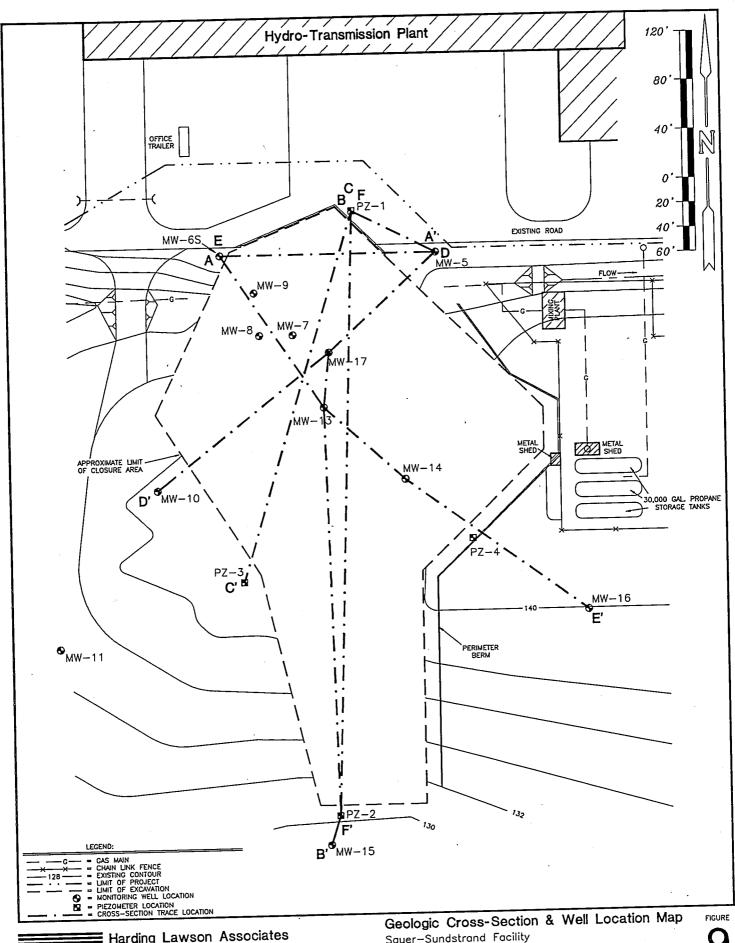
APPROVED

VERTICAL SCALE 1" = 10' HORIZONTAL SCALE 1" = 80'

DRAWN PROJECT NUMBER **EWS** 20603,20.1

DATE 06/01/94

REVISED DATE





Engineering and Environmental Services

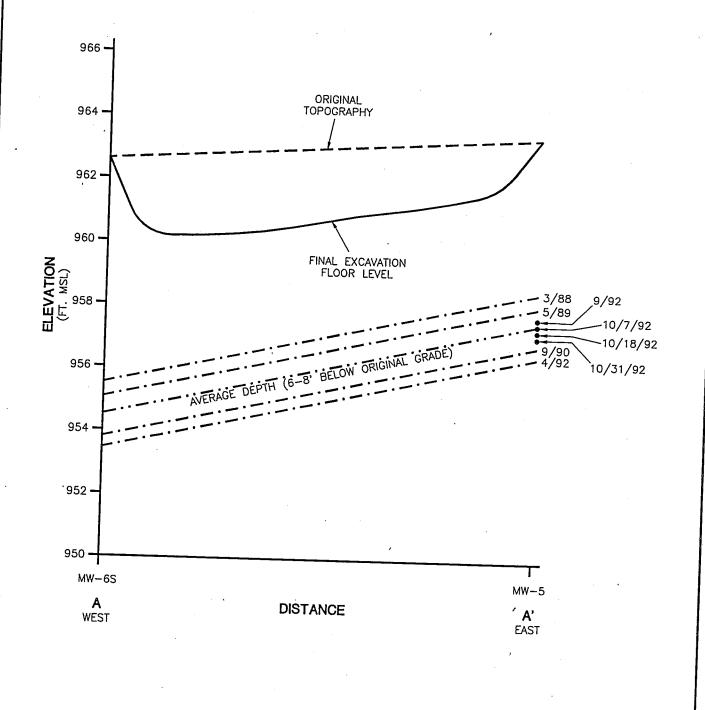
PROJECT NUMBER DRAWN 20603,20.1 **EWS**

Sauer-Sundstrand Facility 2800 East 13th Street Ames, Iowa 50010

REVISED DATE

APPROVED

DATE 06/01/94





Engineering and Environmental Services

DRAWN

EWS

PROJECT NUMBER 20603,22

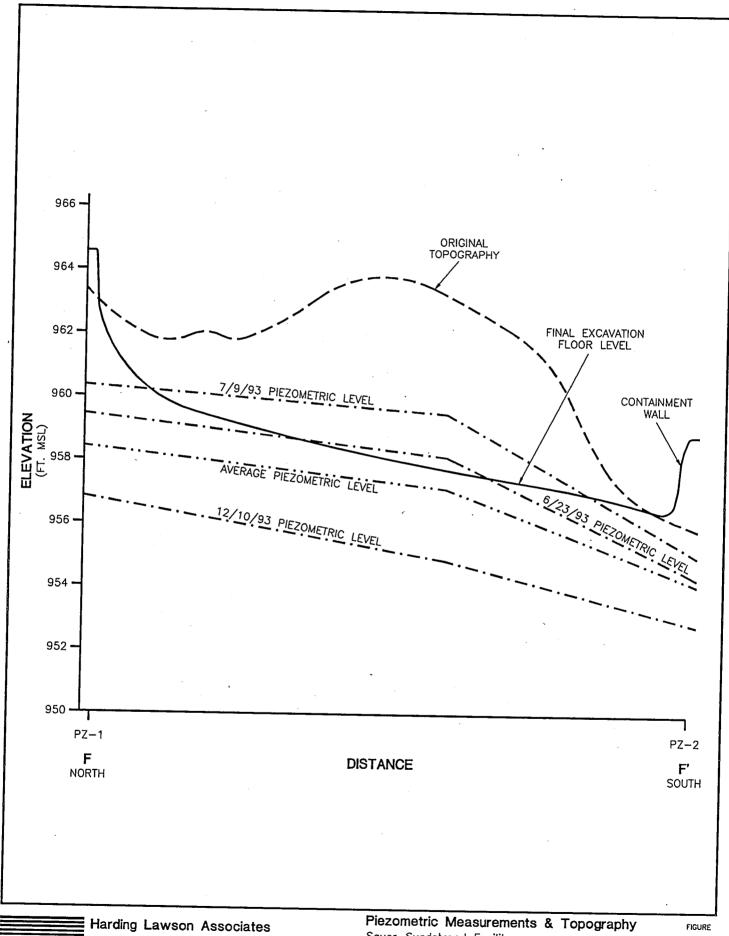
MW-5 & MW-6S Piezometric Levels

Sauer-Sundstrand Facility 2800 East 13th Street Ames, Iowa 50010 FIGURE

10

APPROVED DATE 07/27/94

REVISED DATE





Engineering and Environmental Services

PROJECT NUMBER 20603,22 DRAWN **EWS**

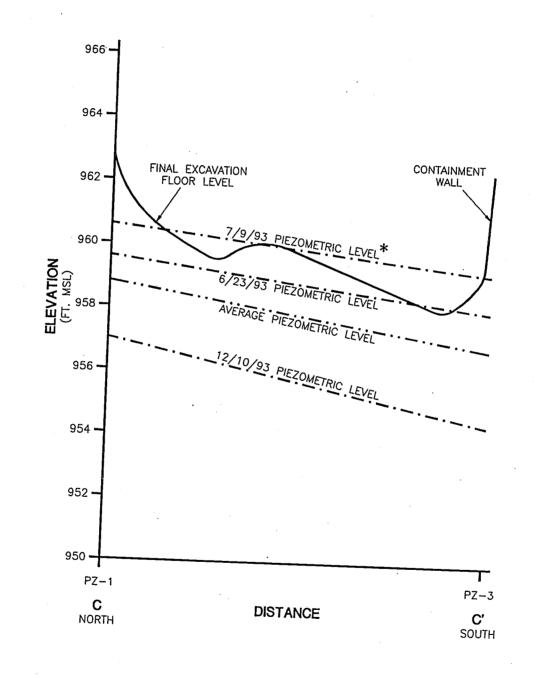
Sauer—Sundstrand Facility 2800 East 13th Street Ames, Iowa 50010

APPROVED,

mle

REVISED DATE

DATE 07/27/94



* = INDICATES HIGHEST RECORDED PIEZOMETRIC SURFACE DURING THE 6/23/93 - 12/10/93 PERIOD.



Harding Lawson Associates

Engineering and Environmental Services

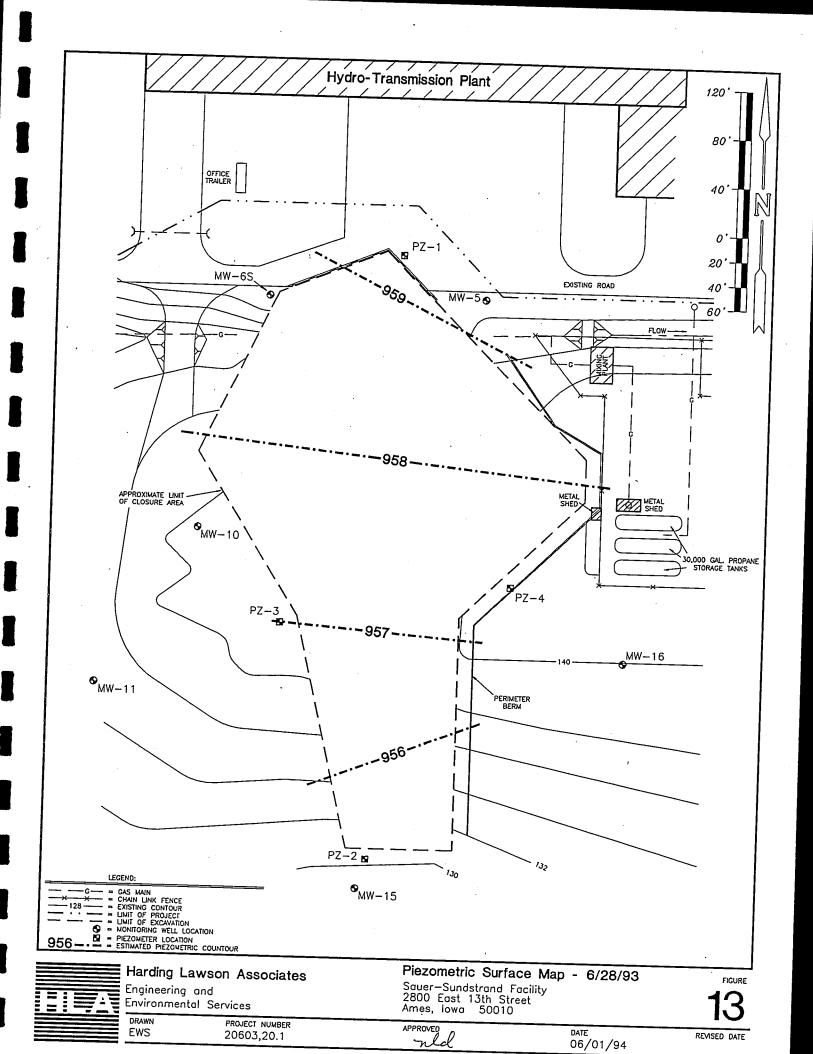
DRAWN PROJECT NUMBER 20603,22

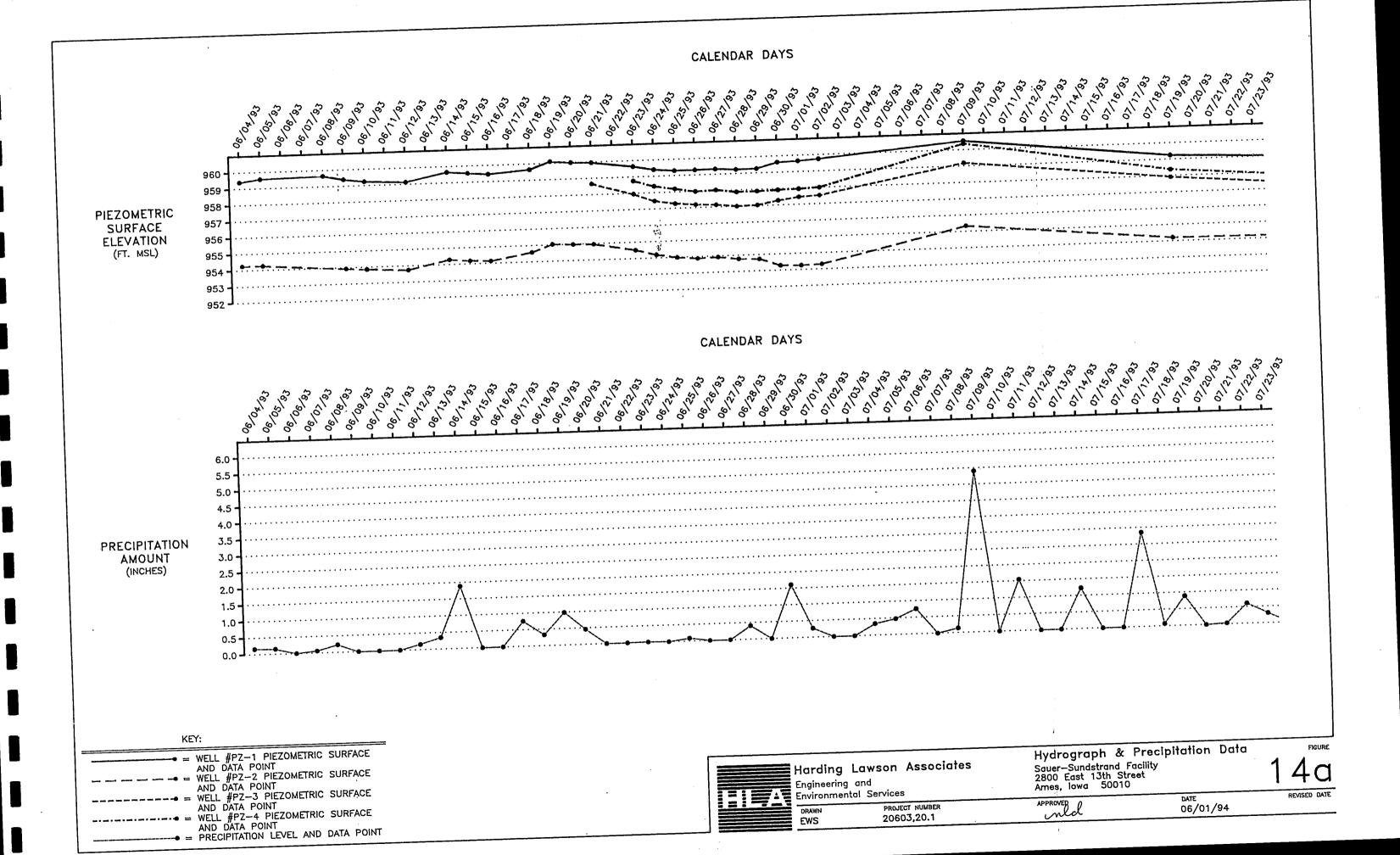
Piezometric Measurements & Topography

Sauer-Sundstrand Facility 2800 East 13th Street Ames, Iowa 50010 FIGURE 12

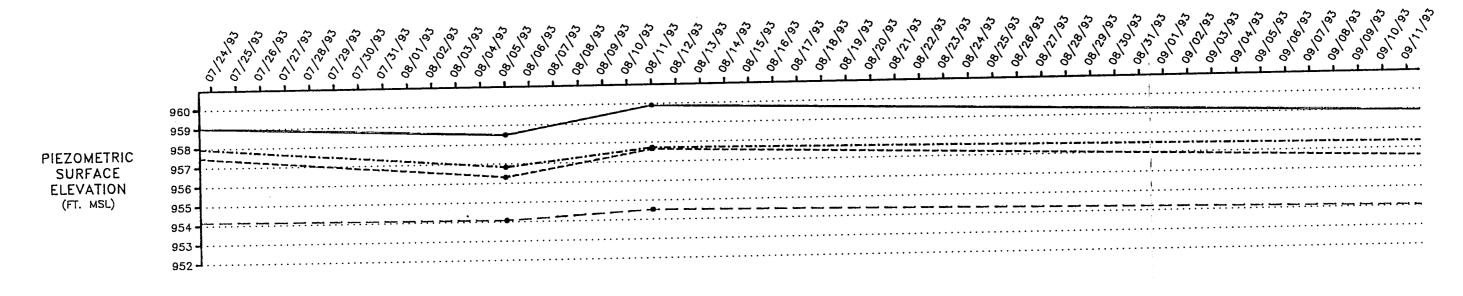
APPROVED DATE 07/27/94

REVISED DATE

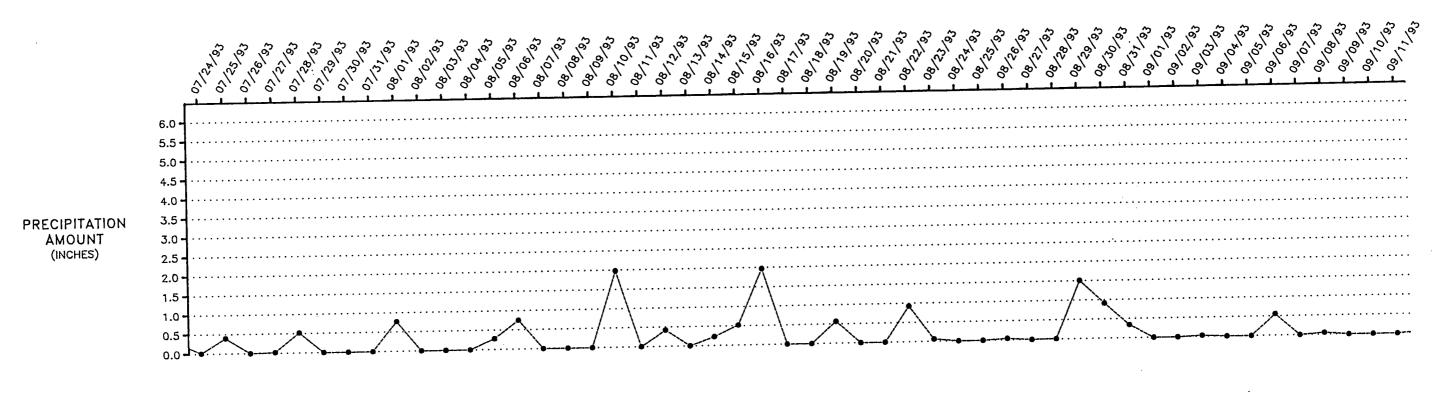




CALENDAR DAYS



CALENDAR DAYS



KEY:

WELL #PZ-1 PIEZOMETRIC SURFACE
AND DATA POINT
WELL #PZ-2 PIEZOMETRIC SURFACE
AND DATA POINT
WELL #PZ-3 PIEZOMETRIC SURFACE
AND DATA POINT
WELL #PZ-4 PIEZOMETRIC SURFACE
AND DATA POINT
WELL #PZ-4 PIEZOMETRIC SURFACE
AND DATA POINT
PRECIPITATION LEVEL AND DATA POINT



Harding Lawson Associates

Engineering and

Environmental Services

DRAWN EWS PROJECT NUMBER 20603,20.1

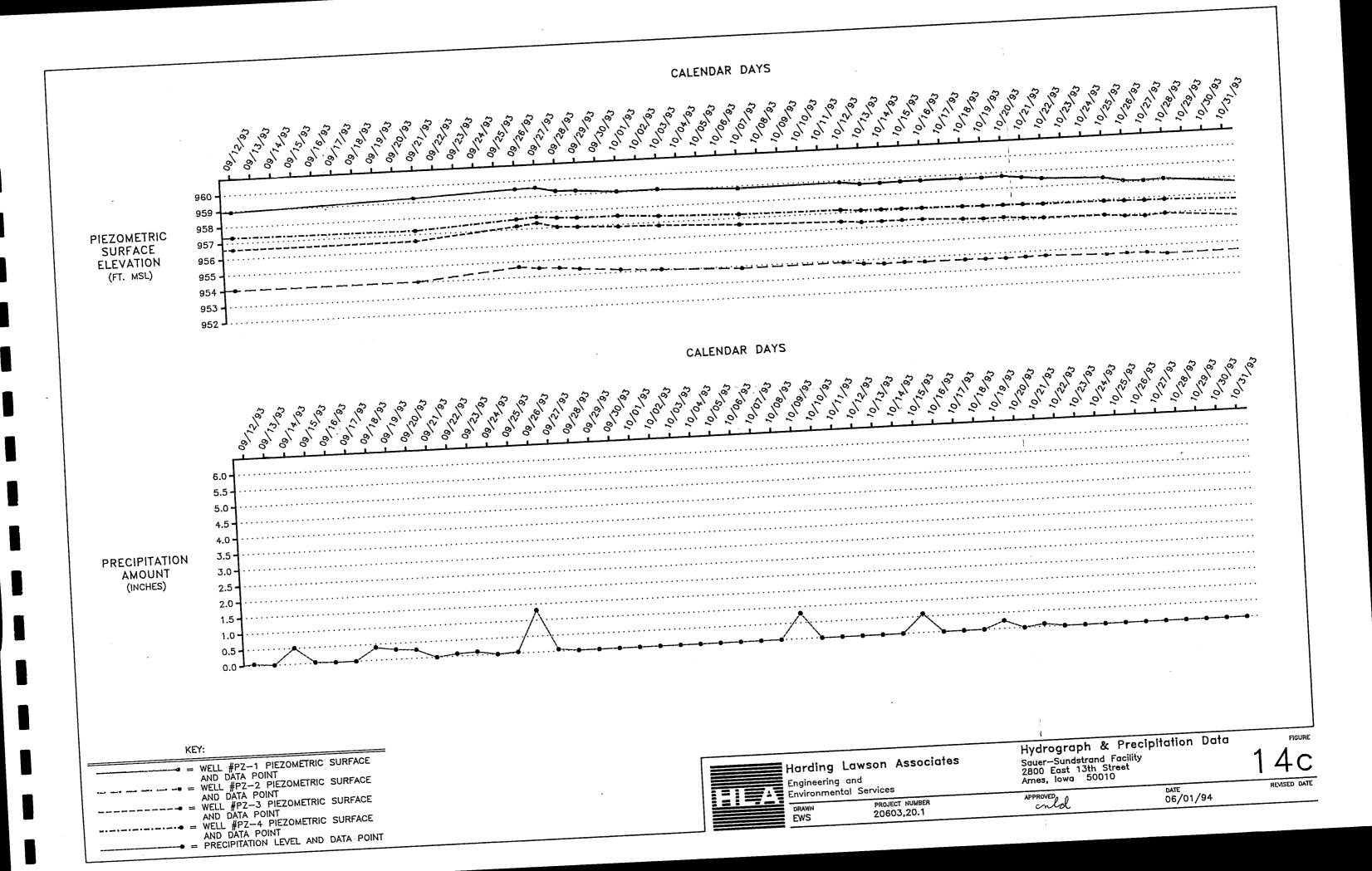
Hydrograph & Precipitation Data Squer—Sundstrand Facility

Sauer—Sundstrand Facility 2800 East 13th Street Ames, lowa 50010

nlol

14b

DATE 06/01/94 REVISED DATE



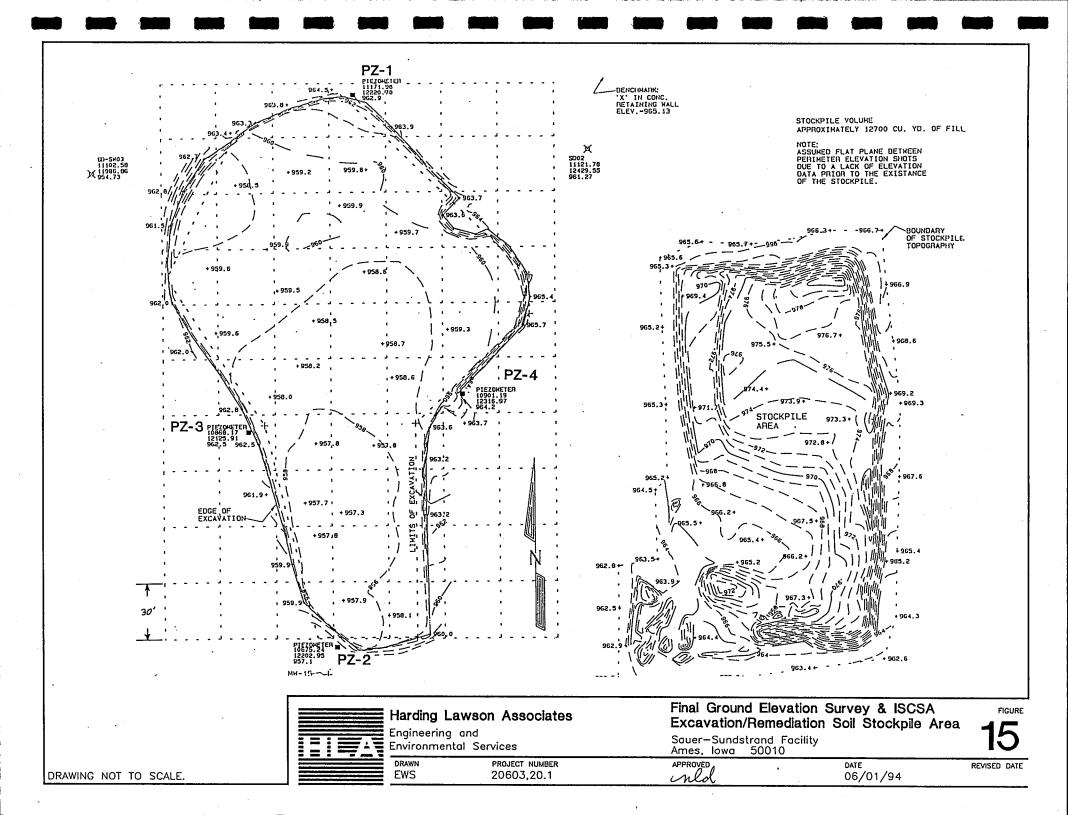
CALENDAR DAYS 1/0/05 1/0/20 1/1/05 1/2/20 12/2/2 1/1/200 11/0/0/1/ 1/2/83 170/05 2020 2000 1/2/03 1/2/8/8/ 20/08 ,210318°S 960 959 958 PIEZOMETRIC 957 SURFACE **ELEVATION** 956 (FT. MSL) 955 954 953 952 -CALENDAR DAYS 1000 11/8/8 1/2/85 1/1/0/2011 6.0 5.0 4.0 3.5 PRECIPITATION (NO DATA AVAILABLE) **AMOUNT** 3.0 (INCHES) 1.5 1.0 0.5 KEY: WELL #PZ-1 PIEZOMETRIC SURFACE AND DATA POINT WELL #PZ-2 PIEZOMETRIC SURFACE Hydrograph & Precipitation Data AND DATA POINT

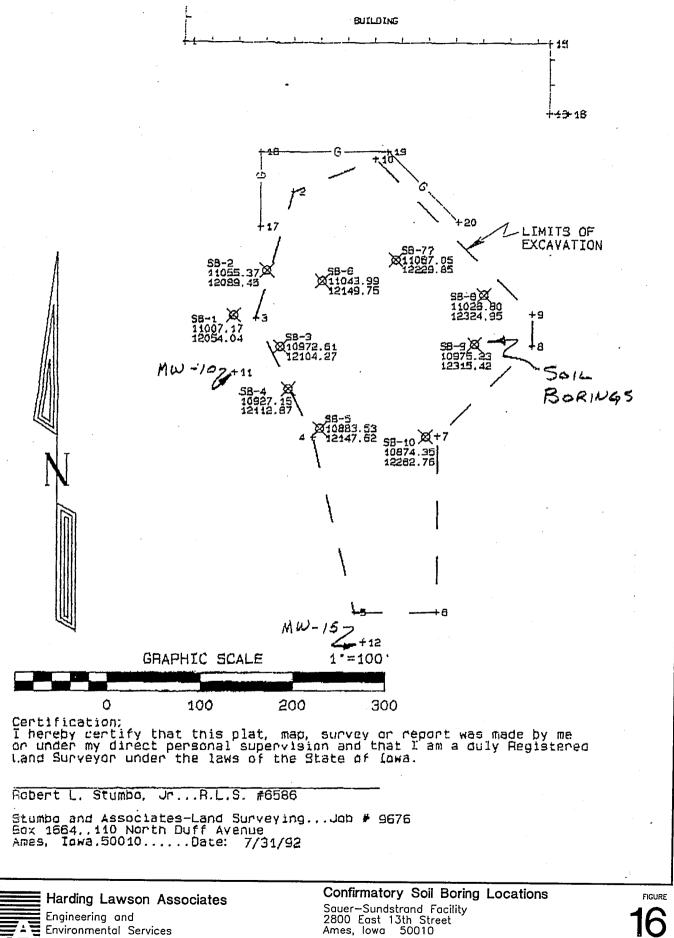
WELL #PZ-3 PIEZOMETRIC SURFACE
AND DATA POINT Harding Lawson Associates Sauer-Sundstrand Facility 2800 East 13th Street Ames, lowa 50010 Engineering and Environmental Services WELL #PZ-4 PIEZOMETRIC SURFACE AND DATA POINT APPROVED PRECIPITATION LEVEL AND DATA POINT inld

DRAWN PROJECT NUMBER EWS 20603,20.1

REVISED DATE

06/01/94





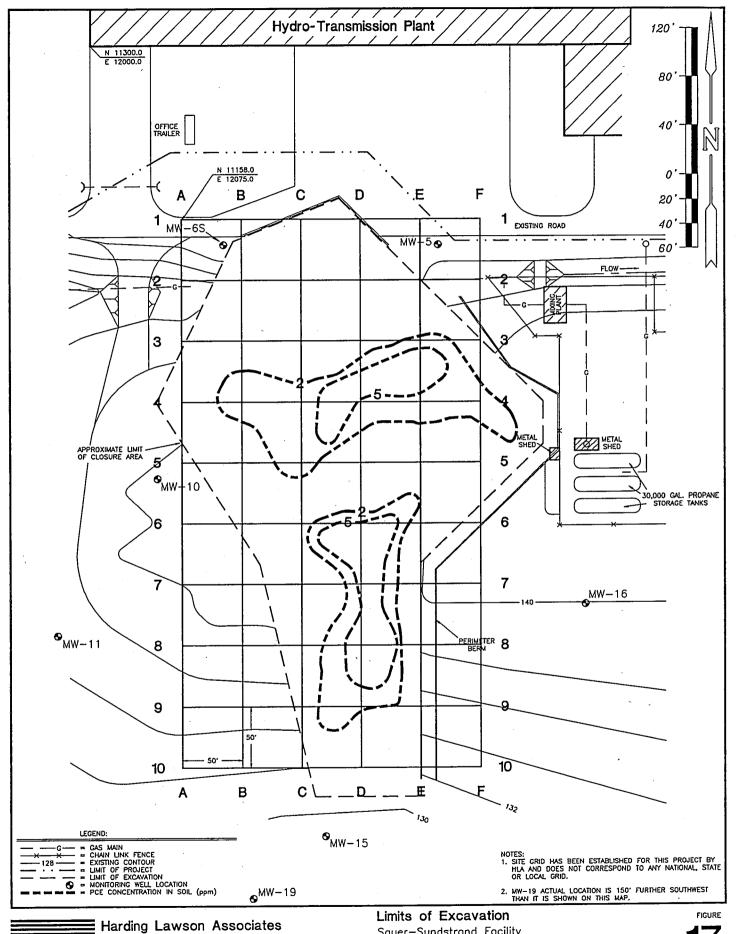
Engineering and

Environmental Services

DRAWN PROJECT NUMBER **EWS** 20603,20.1

APPROVED

DATE 06/01/94





20603,20.1

Engineering and

EWS

Environmental Services PROJECT NUMBER

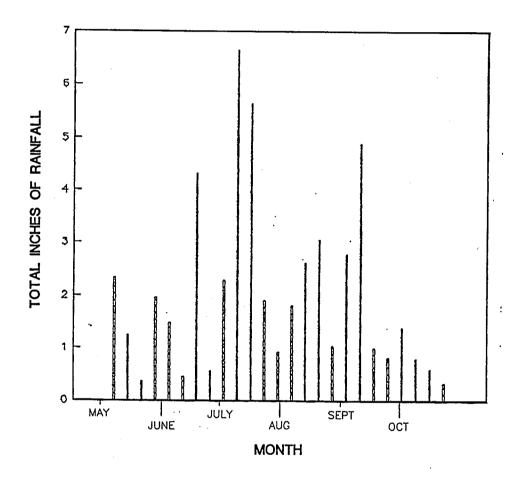
APPROVED

Sauer—Sundstrand Facility 2800 East 13th Street Ames, Iowa 50010

REVISED DATE

DATE

06/01/94





Harding Lawson Associates

Engineering and Environmental Services

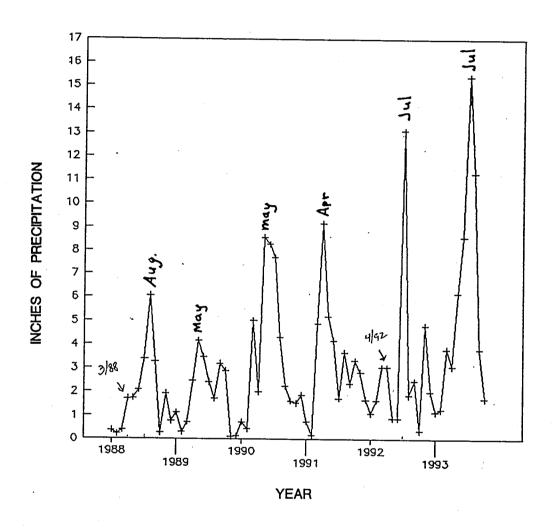
PROJECT NUMBER 20603,22 DRAWN EWS

Central Iowa Weekly Precipitation from May 5, 1993 to November 11, 1993

Sauer—Sundstrand Facility Ames, Iowa 50010 APPROVED

FIGURE

DATE 07/27/94





Harding Lawson Associates

Engineering and Environmental Services

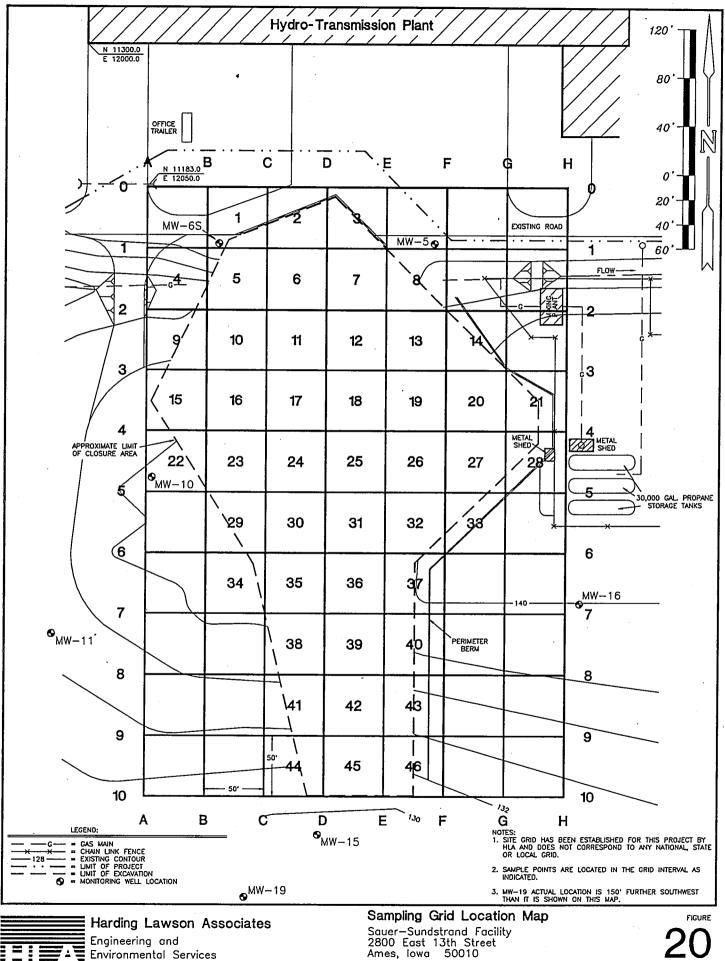
DRAWN PROJECT NUMBER EWS 20603,20.1

Central Iowa Area Precipitation - 1988 to 1993 FIGURE Squer-Sundstrand Facility

Sauer—Sundstrand Facility 2800 East 13th Street Ames, Iowa 50010

APPROVED

19
DATE REVISED DATE 06/01/94



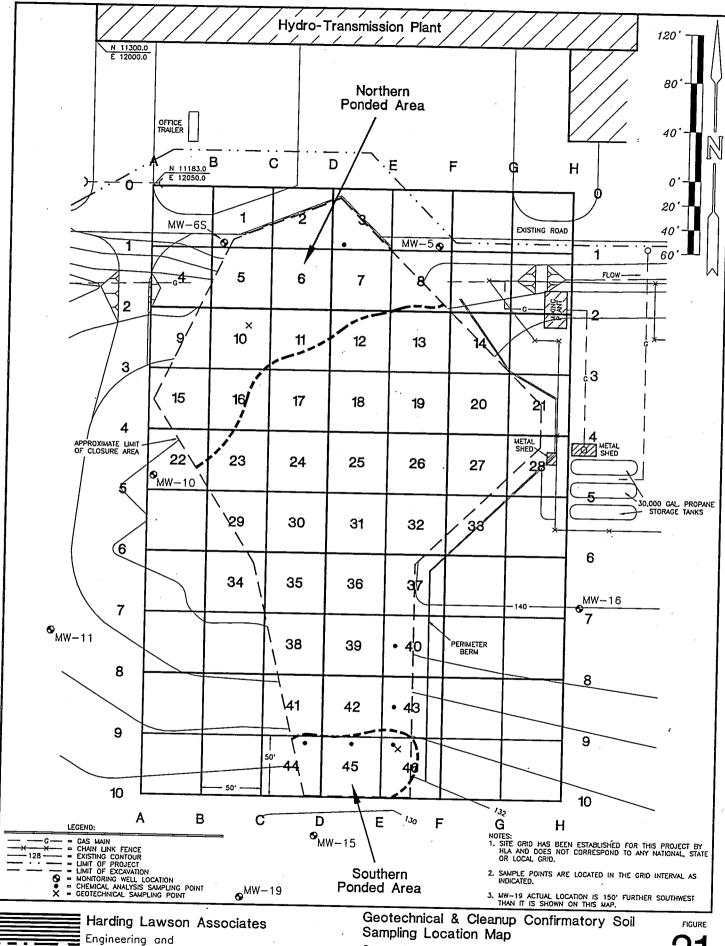


Engineering and Environmental Services

DRAWN PROJECT NUMBER **EWS** 20603,20.1

DATE 06/01/94

APPROVED



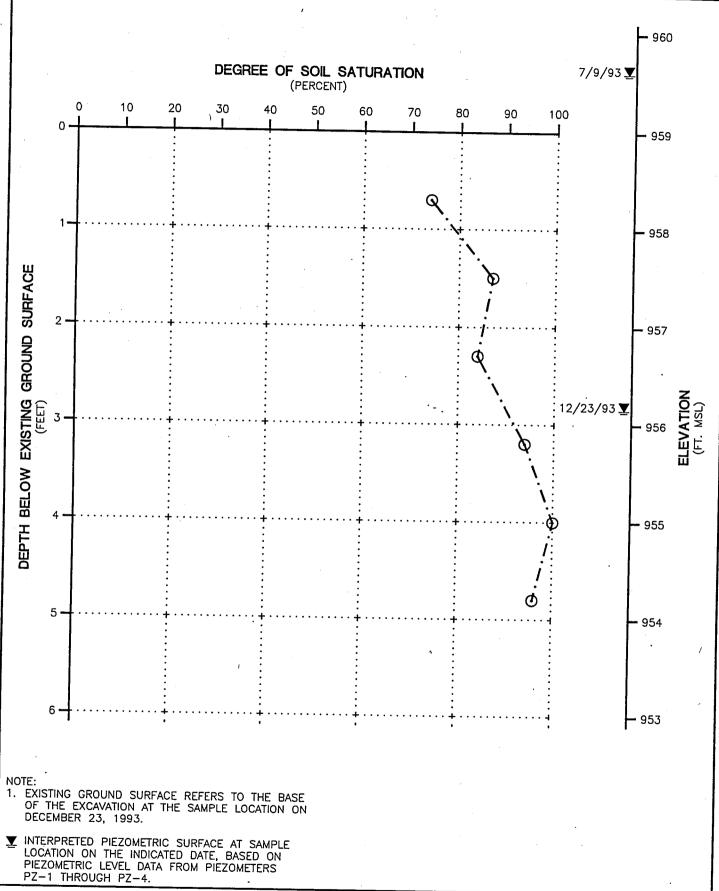


Environmental Services

DRAWN PROJECT NUMBER EWS 20603,20.1

Sauer-Sundstrand Facility Ames, Iowa 50010 21

DATE 06/01/94



Harding Lawson Associates

Engineering and Environmental Services

DRAWN PROJECT NUMBER EWS 20603,22

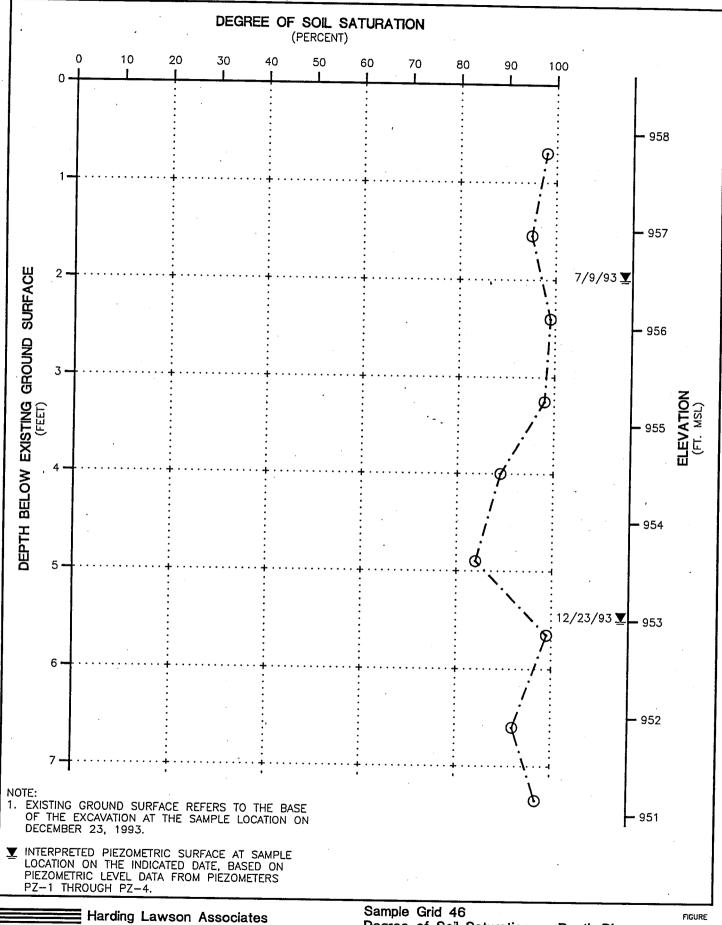
Sample Grid 10

APPROVED

Degree of Soil Saturation vs Depth Diagram

Sauer-Sundstrand Facility Ames, Iowa 50010 22°

DATE 08/10/94





Engineering and Environmental Services

DRAWN PROJECT NUMBER **EWS** 20603,22

Degree of Soil Saturation vs Depth Diagram

Sauer-Sundstrand Facility Ames, Iowa 50010 APPROVED

DATE 08/10/94

APPENDIX A CLOSURE CERTIFICATION STATEMENT

APPENDIX A CLOSURE CERTIFICATION STATEMENT

The undersigned certify that the Designated Drum Storage Area and Interim Status Container Storage Area have been closed in accordance with the U.S. EPA approved closure plan dated May 14, 1991. It is further certified that under penalty of law that this document and all attachments were prepared under the direction or supervision of a professional engineer with registration in the State of Iowa in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on the inquiry of the person or persons who managed the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of our knowledge and belief, true, accurate, and complete.

IAD056736184

Sundstrand Corporation

U.S. EPA ID Number

Facility Name

Harding Lawson Associates, Inc.

Name/Title ENVIRONMENTAL PROJECT

ADMINISTRATOR

(-11123

Registered Professional Engineer Registration Number Scott R. MOYER

REGISTRATION STAMP



APPENDIX B U.S. EPA CORRESPONDENCE



REGION VII 726 MINNESOTA AVENUE KANSAS CITY, KANSAS 66101

RECEIVED

APR 0 1 1892

Environmental Affairs

MAR 2 3 1992

CERTIFIED MAIL

Return Receipt Requested

Article Number: P 679 477 016

Mr. Robert Miller Sundstrand Corporation 4949 Harrison Rockford, IL 60018

Tentative Approval of the Interim Status Re: Container Storage Area Closure Plan

Sundstrand-Sauer, 2800 East 13th Street, Ames, Iowa

EPA ID No. IAD056736184

Dear Mr. Miller:

My staff has reviewed the modified closure plan dated May 14, 1991 for the interim status hazardous waste container storage area at the Ames, Iowa facility. Based on our review, we hereby tentatively approve the modified closure plan. Final approval of the closure plan may be granted after consideration of all comments received during the public comment period scheduled from March 30, 1992 until April 30, 1992.

The public comment period for the closure plan will begin with our publication of a public notice in the Ames Daily Tribune on March 30, 1992. Within that period, citizens may comment on the modified closure plan and/or request a public hearing. Following the comment period, EPA can approve the closure plan after addressing comments received.

The enclosed closure plan will be made available at the Ames Public Library, the Iowa Department of Natural Resources (IDNR) in Des Moines, Iowa and at the EPA Region VII Library during the comment period. Please contact Ken Herstowski of my staff at (913) 551-7631 if you have any questions regarding this letter.

Sincerely,

Michael J. Sanderson Chief, RCRA Branch

Waste Management Division

Enclosure

Pete Hamlin, IDNR

Linda Aylward, Sundstrand Corporation

James Andreasen, Spencer Fane, Britt & Browne





REGION VII 726 MINNESOTA AVENUE KANSAS CITY, KANSAS 66101

MAR 3 0 1993

Mr. George Charbonneau Sauer-Sundstrand Company 2800 East 13th Street Ames, IA 50010

Re: Closure Sampling Procedures
Sauer-Sundstrand Company
Ames, Iowa
EPA RCRA ID No. IAD056736184

Dear Mr. Charbonneau:

This letter is in response to your consultant's, Mr. Robert Parsons of Harding Lawson Associates, March 1, 1993 letter proposing specific sampling procedures during closure of the former container storage area. We have reviewed the proposed procedures and find them acceptable with one exception. Therefore, the proposed procedures may be used contingent upon the following requirement.

The last paragraph on page 11 of the proposal states that field blanks will be obtained "by running reagent grade sand over the sampling equipment and then filling the sample jar with the sand. The U. S. Environmental Protection Agency (EPA) has previously commented on this procedure in our September 9, 1992 comment letter for the May 92 RFI Workplan. Field blanks shall be obtained by running clean water, i.e., reagent grade distilled/deionized water, over the sampling equipment and collecting the water in the sampling vial.

Thank you for your cooperation in this matter. Please contact Ken Herstowski, of my staff, at (913) 551-7631 if you have any questions regarding this letter.

Sincerely,

James V. Callier Chief, Iowa Section RCRA Branch

cc: Joseph Obr, IDNR

Robert Miller, Sundstrand Scott Moyer, Sundstrand

Robert Parsons, Harding Lawson Assoc.



REGION VII 726 MINNESOTA AVENUE KANSAS CITY, KANSAS 66101

COPY FROM ORIGINAL

MAY 1 1 1952

CERTIFIED MAIL
Return Receipt Requested
Article Number: P 679 713 178

Mr. Robert Miller Sundstrand Corporation 4949 Harrison Rockford, IL 60018

Re: Closure of the Hazardous Waste Container Storage Area Sundstrand-Sauer, Ames, Iowa; EPA ID# IAD056736184

Dear Mr. Miller:

The closure plan tentatively approved by the Environmental Protection Agency (EPA) on March 23, 1992 for your facility was made available for public comment from March 30, 1992 until April 30, 1992. We did not receive any comments on the closure plan.

This letter is to notify you of final approval of the closure plan for your hazardous waste container storage area. The closure plan dated May 14, 1992 is the approved closure plan. The schedule in the approved closure plan is effective as of the date of this letter.

In accordance with Title 40 of the Code of Federal Regulations 265.115, the owner/operator and an independent, registered professional engineer must provide certification that all closure activities have been completed in accordance with the approved closure plan. Please submit the closure documentation and report with the certifications.

Please keep Ken Herstowski, of my staff, informed of any significant issues or events that may arise during your

Post-It brand fax transmittal m To Dock Daniel Co. HA Dept. Fax # 3178457415	emo 7671 # of pages > Z From Kon Herstowski co. EPA 27 Phone #9135517631 Fax #

implementation of the approved closure plan. Ken may be reached at (913) 551-7631. Thank you for your cooperation in this matter.

Sincerely,

Director

Waste Management Division

¢¢:

Pete Hamlin, IDNR Linda Aylward, Sundstrand Corporation James Andreasen, Spencer Fane, Britt & Browne



REGION VII 726 MINNESOTA AVENUE KANSAS CITY, KANSAS 66101

RECEIVED DEC 1 1 1992 William

DEC 0 1 1992

CERTIFIED MAIL
Return Receipt Requested
Article Number: P 400 660 939

Mr. George Charbonneau Sauer-Sundstrand Company 2800 East 13th Street Ames, IA 50010

Re: Closure Extension for Sauer-Sundstrand Company Ames, Iowa EPA RCRA ID No. IAD056736184

Letter of Warning

Dear Mr. Charbonneau:

This letter is in response to your October 26, 1992 request for an extension to the time allowed for closure of the container storage area at the referenced facility. It is our understanding that this extension is needed in order to complete clean-up activities. Based upon the information which you have provided, we hereby extend the time allowed for closure an additional 360 days.

All closure activities must be completed by October 22, 1993, Failure to complete closure activities by that date could result in an enforcement action against your company which may include the assessment of penalties. The closure certifications and report must be submitted by January 20, 1994. Please contact Ken Herstowski, of my staff, at (913) 551-7631 if you have any questions regarding this letter.

Sincerely,

James V. Callier Chief, Iowa Section RCRA Branch

cc: Pete Hamlin, IDNR
 Robert Miller, Sundstrand
 Scott Moyer, Sundstrand
 Robert Parsons, Harding Lawson Assoc.



REGION VII 726 MINNESOTA AVENUE KANSAS CITY, KANSAS 66101

NOV 1 1993

Mr. George Charbonneau Sauer-Sundstrand Company 2800 East 13 Street Ames, Iowa 50010

Dear Mr. Charbonneau:

Re: Closure Extension for Sauer-Sundstrand Company

Ames, Iowa

EPA RCRA ID No. IAD056736184

This letter is in response to your Consultants, Harding Lawson Associates' October 10, 1993, request for an extension to the time allowed for closure of the container storage area at the referenced facility. It is our understanding that this extension is needed in order to complete closure activities delayed by this summers weather. Based upon the information which you have provided, we hereby extend the time allowed for closure an additional 360 days.

All closure activities must be completed by October 17, 1994. Failure to complete closure activities by that date could result in an enforcement action against your company which may include the assessment of penalties. The closure certifications and report must be submitted by December 17, 1994. Please contact Ken Herstowski, of my staff, at (913) 551-7631 if you have any questions regarding this letter.

Sincerely,

James V. Callier Chief, IOWA Section RCRA Branch

cc: Joseph Obr, IDNR

Robert Miller, Sauer-Sundstraud

APPENDIX C

CONFIRMATORY SOIL ANALYSES FOR CLEANUP LEVELS IN LIFTS 1-13



LABORATORY REPORT

PAGE 1

W36

H413 8477721

CHAIN OF CUSTODY

HARDING LAWSON ASSOCIATES

ONE TOWER LANE

SUITE 1300

OAK BROOK TERRACE ,IL 60181

ATTN: BILL RENNER

LIFT !

92269-H11088 G701/SOIL/PROJECT# 20603.20.1/SAVER-SUNDSTRAND SAMPLE

DATE COLLECTED 09/24/92

DATE RECEIVED 09/25/92

PRESERVED: YES

TEMPERATURE: ON ICE

CONT. INTEGRITY: MEETS STANDARD

SAMPLE INTEG: MEETS STANDARD

TEST NAME	RESULT	UNITS	ANALYZED	METHOD	
TETRACHLOROETHYLENE 1,1,1-TRICHLOROETHANE	<0.050 <0.050	PPM PPM		METHOD SW846 8010 SW846 8010	LIMIT

PLEASE CONTACT CLIENT SERVICES WITH ANY QUESTIONS. WATER SAMPLES ARE DISPOSED OF 30 DAYS AFTER RECEIPT; SOIL SAMPLES WILL BE DISPOSED OF 6 WEEKS AFTER RECEIPT; WASTE SAMPLES (NON-WATER, NON-SOIL) WILL BE RETURNED 6 WEEKS AFTER RECEIPT. N/T = NOT TESTED, N/A = NOT APPLICABLE, N/D = NOT DETECTED.

@ = ELEVATED DETECTION LIMIT DUE TO MATRIX INTERFERENCE. # = ELEVATED DETECTION LIMIT DUE TO SAMPLE CONCENTRATION. \$ = ELEVATED DETECTION LIMIT DUE TO SAMPLE QUANTITY. + = ELEVATED DETECTION LIMIT DUE TO EXTRACT VOLUME. APPROVAL



LABORATORY REPORT

PAGE 1

H413 8477721 W36

CHAIN OF CUSTODY

HARDING LAWSON ASSOCIATES

ONE TOWER LANE

SUITE 1300

OAK BROOK TERRACE ,IL 60181

ATTN: BILL RENNER

LIFT 1

SAMPLE

92269-H11087 CC 3301/SOIL/PROJECT# 20603.20.1/SAVER-SUNDSTRAND

DATE COLLECTED 09/24/92

DATE RECEIVED 09/25/92

PRESERVED: YES

TEMPERATURE: ON ICE

CONT. INTEGRITY: MEETS STANDARD

SAMPLE INTEG: MEETS STANDARD

TEST NAME	RESULT	UNITS	ANALYZED	METHOD	LIMIT
TETRACHLOROETHYLENE 1,1,1-TRICHLOROETHANE	0.080 <0.050	PPM PPM		SW846 8010 SW846 8010	

PLEASE CONTACT CLIENT SERVICES WITH ANY QUESTIONS. <u>WATER SAMPLES ARE DISPOSED OF 30 DAYS AFTER RECEIPT</u>; <u>SOIL SAMPLES WILL BE DISPOSED OF 6 WEEKS AFTER RECEIPT</u>; <u>WASTE SAMPLES (NON-WATER, NON-SOIL) WILL BE RETURNED 6 WEEKS AFTER RECEIPT</u>. N/T = NOT TESTED, N/A = NOT APPLICABLE, N/D = NOT DETECTED.

@ = ELEVATED DETECTION LIMIT DUE TO MATRIX INTERFERENCE. # = ELEVATED DETECTION LIMIT DUE TO SAMPLE CONCENTRATION.

\$ = ELEVATED DETECTION LIMIT DUE TO SAMPLE QUANTITY.
AIHA ACCREDITED

+ = ELEVATED DETECTION LIMIT DUE TO EXTRACT VOLUME.

APPROVAL



LABORATORY REPORT

PAGE 1

H413 8477352

CHAIN OF CUSTODY

HARDING LAWSON ASSOCIATES

ONE TOWER LANE

SUITE 1300

OAK BROOK TERRACE

,IL 60181

ATTN: BILL RENNER

SAMPLE 92255-H11087 CC33 LIFT 1/ JOB #20603.20.1 SAVER/SUNDSTRAND-AMES

DATE COLLECTED 09/10/92

PRESERVED: YES

DATE RECEIVED 09/11/92 TEMPERATURE: ON ICE

CONT. INTEGRITY: MEETS STANDARD

SAMPLE INTEG: MEETS STANDARD

TEST NAME	RESULT	UNITS	ANALYZED	METHOD	LIMIT
TETRACHLOROETHYLENE 1,1,1-TRICHLOROETHANE	0.51	PPM	09/11/92	SW846 8010	!
	<0.050	PPM	09/11/92	SW846 8010	!

PLEASE CONTACT CLIENT SERVICES WITH ANY QUESTIONS. WATER SAMPLES ARE DISPOSED OF 30 DAYS AFTER RECEIPT; SOIL SAMPLES WILL BE DISPOSED OF 6 WEEKS AFTER RECEIPT; WASTE SAMPLES (NON-WATER, NON-SOIL) WILL BE RETURNED 6 WEEKS AFTER RECEIPT. N/T = NOT TESTED, N/A = NOT APPLICABLE, N/D = NOT DETECTED.

@ = ELEVATED DETECTION LIMIT DUE TO MATRIX INTERFERENCE. # = ELEVATED DETECTION LIMIT DUE TO SAMPLE CONCENTRATION. + = ELEVATED DETECTION LIMIT DUE TO EXTRACT VOLUME. \$ = ELEVATED DETECTION LIMIT DUE TO SAMPLE QUANTITY.

APPROVAL



LABORATORY REPORT

PAGE

H413 8477722

HARDING LAWSON ASSOCIATES

ONE TOWER LANE

SUITE 1300

OAK BROOK TERRACE ,IL 60181

ATTN: BILL RENNER

CHAIN OF CUSTODY

SAMPLE 92269-H11090 CAL 01/WATER/PROJECT# 20603.20.1/SAVER-SUNDSTRAND

DATE COLLECTED 09/24/92 PRESERVED: YES

DATE RECEIVED 09/25/92 TEMPERATURE: ON ICE

CONT. INTEGRITY: MEETS STANDARD

SAMPLE INTEG: HEADSPACE PRESENT

 		!
	10/01/92 SW846 8010 10/01/92 SW846 8010	

PLEASE CONTACT CLIENT SERVICES WITH ANY QUESTIONS. WATER SAMPLES ARE DISPOSED OF 30 DAYS AFTER RECEIPT; SOIL SAMPLES WILL BE DISPOSED OF 6 WEEKS AFTER RECEIPT; WASTE SAMPLES (NON-WATER, NON-SOIL) WILL BE RETURNED 6 WEEKS AFTER RECEIPT. N/T = NOT TESTED, N/A = NOT APPLICABLE, N/D = NOT DETECTED.

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APPROVAL



LABORATORY REPORT

PAGE 1

H413 8477722 W36

CHAIN OF CUSTODY

HARDING LAWSON ASSOCIATES

ONE TOWER LANE

SUITE 1300

OAK BROOK TERRACE

,IL 60181

ATTN: BILL RENNER

SAMPLE

92269-H11091 CAL A02/WATER/PROJECT# 20603.20.1/SAVER-SUNDSTRAND

DATE COLLECTED 09/24/92

PRESERVED: YES

DATE RECEIVED 09/25/92 TEMPERATURE: ON ICE

CONT. INTEGRITY: MEETS STANDARD

SAMPLE INTEG: HEADSPACE PRESENT

TEST NAME	RESULT	UNITS	ANALYZED	METHOD	LIMIT
TETRACHLOROETHYLENE 1,1,1-TRICHLOROETHANE	<50 180	PPB PPB		SW846 8010 SW846 8010	!!

PLEASE CONTACT CLIENT SERVICES WITH ANY QUESTIONS. <u>WATER SAMPLES ARE DISPOSED OF 30 DAYS AFTER RECEIPT</u>; SOIL SAMPLES WILL BE DISPOSED OF 6 WEEKS AFTER RECEIPT; WASTE SAMPLES (NON-WATER, NON-SOIL) WILL BE RETURNED 6 WEEKS AFTER RECEIPT. N/T = NOT TESTED, N/A = NOT APPLICABLE, N/D = NOT DETECTED.

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+ = ELEVATED DETECTION LIMIT DUE TO EXTRACT VOLUME.



LABORATORY REPORT

PAGE 1

H413 8477352 W61 CA/* / / /

CHAIN OF CUSTODY

HARDING LAWSON ASSOCIATES

ONE TOWER LANE

SUITE 1300

OAK BROOK TERRACE

,IL 60181

ATTN: BILL RENNER

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SAMPLE

92255-H11088 C4 LIFT 2/ JOB #20603.20.1 SAVER/SUNDSTRAND-AMES

DATE COLLECTED 09/10/92

PRESERVED: YES

DATE RECEIVED 09/11/92 TEMPERATURE: ON ICE

CONT. INTEGRITY: MEETS STANDARD

SAMPLE INTEG: MEETS STANDARD

TEST NAME	RESULT	<u>UNITS</u>	ANALYZED	METHOD	LIMIT
TETRACHLOROETHYLENE 1,1,1-TRICHLOROETHANE	<0.050 <0.050	PPM PPM		SW846 8010 SW846 8010	! !

PLEASE CONTACT CLIENT SERVICES WITH ANY QUESTIONS. <u>WATER SAMPLES ARE DISPOSED OF 30 DAYS AFTER RECEIPT</u>; <u>SOIL SAMPLES WILL BE DISPOSED OF 6 WEEKS AFTER RECEIPT</u>; <u>WASTE SAMPLES (NON-WATER, NON-SOIL) WILL BE RETURNED 6 WEEKS AFTER RECEIPT</u>. N/T = NOT TESTED, N/A = NOT APPLICABLE, N/D = NOT DETECTED.

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\$ = ELEVATED DETECTION LIMIT DUE TO SAMPLE QUANTITY. + = ELEVATED DETECTION LIMIT DUE TO EXTRACT VOLUME.



LABORATORY REPORT

PAGE 1

H413 8477352 CA/* /

CHAIN OF CUSTODY

HARDING LAWSON ASSOCIATES

ONE TOWER LANE SUITE 1300

OAK BROOK TERRACE

,IL 60181

ATTN: BILL RENNER

92255-H11089 D7 LIFT 2/ JOB #20603.20.1 SAVER/SUNDSTRAND-AMES SAMPLE

DATE COLLECTED 09/10/92

DATE RECEIVED 09/11/92

PRESERVED: YES

TEMPERATURE: ON ICE

CONT. INTEGRITY: MEETS STANDARD

SAMPLE INTEG: MEETS STANDARD

TEST_NAME	RESULT	UNITS	ANALYZED	METHOD	<u>LIMIT</u>	
TETRACHLOROETHYLENE 1,1,1-TRICHLOROETHANE	0.49 0.089	PPM PPM	•••	SW846 8010 SW846 8010		!

PLEASE CONTACT CLIENT SERVICES WITH ANY QUESTIONS. WATER SAMPLES ARE DISPOSED OF 30 DAYS AFTER RECEIPT; SOIL SAMPLES WILL BE DISPOSED OF 6 WEEKS AFTER RECEIPT; WASTE SAMPLES (NON-WATER, NON-SOIL) WILL BE RETURNED 6 WEEKS AFTER RECEIPT. N/T = NOT TESTED, N/A = NOT APPLICABLE, N/D = NOT DETECTED.

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+ = ELEVATED DETECTION LIMIT DUE TO EXTRACT VOLUME. \$ = ELEVATED DETECTION LIMIT DUE TO SAMPLE QUANTITY. AIHA ACCREDITED



LABORATORY REPORT

PAGE 1

H413 8477352 W61

CHAIN OF CUSTODY

HARDING LAWSON ASSOCIATES

ONE TOWER LANE

SUITE 1300

OAK BROOK TERRACE

,IL 60181

ATTN: BILL RENNER

SAMPLE 92255-H11090 D9 LIFT 2/ JOB #20603.20.1 SAVER/SUNDSTRAND-AMES

DATE COLLECTED 09/10/92

DATE RECEIVED 09/11/92

PRESERVED: YES TEMICONT. INTEGRITY: MEETS STANDARD

TEMPERATURE: ON ICE
DARD SAMPLE INTEG: MEETS STANDARD

 TEST NAME
 RESULT
 UNITS
 ANALYZED
 METHOD
 LIMIT

 TETRACHLOROETHYLENE
 0.10
 PPM
 09/11/92
 SW846
 8010

 1,1,1-TRICHLOROETHANE
 <0.050</td>
 PPM
 09/11/92
 SW846
 8010

PLEASE CONTACT CLIENT SERVICES WITH ANY QUESTIONS. WATER SAMPLES ARE DISPOSED OF 30 DAYS AFTER RECEIPT; SOIL SAMPLES WILL BE DISPOSED OF 6 WEEKS AFTER RECEIPT; WASTE SAMPLES (NON-WATER, NON-SOIL) WILL BE RETURNED 6 WEEKS AFTER RECEIPT. N/T = NOT TESTED, N/A = NOT APPLICABLE, N/D = NOT DETECTED.

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\$ = ELEVATED DETECTION LIMIT DUE TO SAMPLE QUANTITY. + = ELEVATED DETECTION LIMIT DUE TO EXTRACT VOLUME.

\$ = ELEVATED DETECTION LIMIT DUE TO SAMPLE QUANTITY.
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PAGE 1

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CHAIN OF CUSTODY

HARDING LAWSON ASSOCIATES

ONE TOWER LANE

SUITE 1300

OAK BROOK TERRACE

,IL 60181

ATTN: BILL RENNER

SAMPLE 92255-H11091 G2 LIFT 2/ JOB #20603.20.1 SAVER/SUNDSTRAND-AMES

DATE COLLECTED 09/10/92

DATE RECEIVED 09/11/92

PRESERVED: YES

TEMPERATURE: ON ICE

CONT. INTEGRITY: MEETS STANDARD

SAMPLE INTEG: MEETS STANDARD

TEST NAME	RESULT	UNITS	ANALYZED	METHOD	LIMIT
TETRACHLOROETHYLENE 1,1,1-TRICHLOROETHANE	<0.050 <0.050	PPM PPM		SW846 8010 SW846 8010	

PLEASE CONTACT CLIENT SERVICES WITH ANY QUESTIONS. WATER SAMPLES ARE DISPOSED OF 30 DAYS AFTER RECEIPT; SOIL

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AFTER RECEIPT. N/T = NOT TESTED, N/A = NOT APPLICABLE, N/D = NOT DETECTED.

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\$ = FLEVATED DETECTION LIMIT DUE TO SAMPLE OUANTITY. + = ELEVATED DETECTION LIMIT DUE TO EXTRACT VOLUME.

\$ = ELEVATED DETECTION LIMIT DUE TO SAMPLE QUANTITY.
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PAGE 1

H413 8477352 W61

CHAIN OF CUSTODY

HARDING LAWSON ASSOCIATES

ONE TOWER LANE

SUITE 1300

OAK BROOK TERRACE ,IL 60181

ATTN: BILL RENNER

SAMPLE 92300-H11088 CC-33-02/LIFT 2/SOIL/SAUER SUNDSTRAND/#20603.20.2

DATE COLLECTED 10/24/92

DATE RECEIVED 10/26/92

PRESERVED: YES

TEMPERATURE: ON ICE

CONT. INTEGRITY: MEETS STANDARD

SAMPLE INTEG: MEETS STANDARD

TEST NAME	RESULT	<u>UNITS</u>	ANALYZED	METHOD	LIMIT
TETRACHLOROETHYLENE 1,1,1-TRICHLOROETHANE	<0.050 <0.050	PPM PPM		SW846 8010 SW846 8010	! !

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LABORATORY REPORT

PAGE 1

H413 8477352 CA/* / / /

CHAIN OF CUSTODY

HARDING LAWSON ASSOCIATES

ONE TOWER LANE SUITE 1300

OAK BROOK TERRACE

,IL 60181

ATTN: BILL RENNER

92300-H11088 CC-33-02/LIFT 2/SOIL/SAUER SUNDSTRAND/#20603.20.2

DATE COLLECTED 10/24/92

DATE RECEIVED 10/26/92

PRESERVED: YES

TEMPERATURE: ON ICE

CONT. INTEGRITY: MEETS STANDARD

SAMPLE INTEG: MEETS STANDARD

TEST NAME	RESULT	<u>UNITS</u>	<u>ANALYZED</u>	METHOD	LIMIT
TETRACHLOROETHYLENE 1,1,1-TRICHLOROETHANE	<0.050 <0.050	PPM		SW846 8021 SW846 8021	

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LABORATORY REPORT

PAGE 1

H413 8477352 W61 CA/* / //

CHAIN OF CUSTODY

HARDING LAWSON ASSOCIATES

ONE TOWER LANE

SUITE 1300

OAK BROOK TERRACE

,IL 60181

ATTN: BILL RENNER

SAMPLE S

92300-H11087 D7-03/LIFT 3/SOIL/SAUER SUNDSTRAND/#20603.20.2

DATE COLLECTED 10/24/92

DATE RECEIVED 10/26/92

PRESERVED: YES

TEMPERATURE: ON ICE

CONT. INTEGRITY: MEETS STANDARD

SAMPLE INTEG: MEETS STANDARD

TEST NAME	RESULT	<u>UNITS</u>	ANALYZED	METHOD	LIMIT
TETRACHLOROETHYLENE 1,1,1-TRICHLOROETHANE	<0.050 <0.050	PPM PPM		SW846 8021 SW846 8021	

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LABORATORY REPORT

PAGE 1

H413 8477352 W61

CHAIN OF CUSTODY

HARDING LAWSON ASSOCIATES

ONE TOWER LANE SUITE 1300

OAK BROOK TERRACE ,IL 60181

ATTN: BILL RENNER

92300-H11089 D4-03/LIFT 3/SOIL/SAUER SUNDSTRAND/#20603.20.2 SAMPLE

DATE COLLECTED 10/24/92

DATE RECEIVED 10/26/92

PRESERVED: YES

TEMPERATURE: ON ICE

CONT. INTEGRITY: MEETS STANDARD

SAMPLE INTEG: MEETS STANDARD

TEST NAME	RESULT	UNITS	ANALYZED	METHOD	LIMIT
TETRACHLOROETHYLENE	<0.050 <0.050	PPM PPM		SW846 8021 SW846 8021	

PLEASE CONTACT CLIENT SERVICES WITH ANY QUESTIONS. WATER SAMPLES ARE DISPOSED OF 30 DAYS AFTER RECEIPT; SOIL SAMPLES WILL BE DISPOSED OF 6 WEEKS AFTER RECEIPT; WASTE SAMPLES (NON-WATER, NON-SOIL) WILL BE RETURNED 6 WEEKS AFTER RECEIPT. N/T = NOT TESTED, N/A = NOT APPLICABLE, N/D = NOT DETECTED.

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\$ = ELEVATED DETECTION LIMIT DUE TO SAMPLE QUANTITY. + = ELEVATED DETECTION LIMIT DUE TO EXTRACT YOLUME. APPROVAL MT. AIHA ACCREDITED



LABORATORY REPORT

PAGE 1

H413 8477352 CA/* / //

CHAIN OF CUSTODY

HARDING LAWSON ASSOCIATES

ONE TOWER LANE

SUITE 1300

OAK BROOK TERRACE

,IL 60181

ATTN: BILL RENNER

SAMPLE

92300-H11090 B5-03/LIFT 3/SOIL/SAUER SUNDSTRAND/#20603.20.2

DATE COLLECTED 10/24/92

DATE RECEIVED 10/26/92

PRESERVED: YES

TEMPERATURE: ON ICE

CONT. INTEGRITY: MEETS STANDARD

SAMPLE INTEG: MEETS STANDARD

LIMIT METHOD ANALYZED **RESULT** UNITS TEST NAME 10/26/92 SW846 8021 PPM <0.050 **TETRACHLOROETHYLENE** 10/26/92 SW846 8021 <0.050 PPM 1.1.1-TRICHLOROETHANE

PLEASE CONTACT CLIENT SERVICES WITH ANY QUESTIONS. WATER SAMPLES ARE DISPOSED OF 30 DAYS AFTER RECEIPT; SOIL SAMPLES WILL BE DISPOSED OF 6 WEEKS AFTER RECEIPT; WASTE SAMPLES (NON-WATER, NON-SOIL) WILL BE RETURNED 6 WEEKS AFTER RECEIPT. N/T = NOT TESTED, N/A = NOT APPLICABLE, N/D = NOT DETECTED.

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APPROVAL MITH



LABORATORY REPORT

PAGE 1

H413 8477352 CA/* /

CHAIN OF CUSTODY

HARDING LAWSON ASSOCIATES

ONE TOWER LANE

PRESERVED: YES

SUITE 1300

OAK BROOK TERRACE ,IL 60181

ATTN: BILL RENNER

92300-H11091 G5-03/LIFT 3/SOIL/SAUER SUNDSTRAND/#20603.20.2

DATE COLLECTED 10/24/92

DATE RECEIVED 10/26/92 TEMPERATURE: ON ICE

CONT. INTEGRITY: MEETS STANDARD

SAMPLE INTEG: MEETS STANDARD

TEST_NAME	RESULT	UNITS	ANALYZED	METHOD	LIMIT
TETRACHLOROETHYLENE	· <0.050	PPM	10/26/92	SW846 8021	
1,1,1-TRICHLOROETHANE	<0.050	PPM	10/26/92	SW846 8021	

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LABORATORY REPORT

PAGE 1

H413 8477352 CA/* / 11

CHAIN OF CUSTODY

HARDING LAWSON ASSOCIATES

ONE TOWER LANE

SUITE 1300

,IL 60181 OAK BROOK TERRACE

ATTN: BILL RENNER

92300-H11087 D7-03/LIFT 3/SOIL/SAUER SUNDSTRAND/#20603.20.2 SAMPLE

DATE COLLECTED 10/24/92

DATE RECEIVED 10/26/92

PRESERVED: YES

TEMPERATURE: ON ICE

CONT. INTEGRITY: MEETS STANDARD

SAMPLE INTEG: MEETS STANDARD

TEST NAME	RESULT	UNITS	ANALYZED	METHOD	LIMIT
TETRACHLOROETHYLENE 1,1,1-TRICHLOROETHANE	<0.050 <0.050	PPM PPM		SW846 8010 SW846 8010	!!

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LABORATORY REPORT

PAGE 1

H413 8477352 W61 CA/* / //

CHAIN OF CUSTODY

HARDING LAWSON ASSOCIATES

ONE TOWER LANE

SUITE 1300

OAK BROOK TERRACE

,IL 60181

ATTN: BILL RENNER

SAMPLE

92300-H11089 D4-03/LIFT 3/SOIL/SAUER SUNDSTRAND/#20603.20.2

DATE COLLECTED 10/24/92

DATE RECEIVED 10/26/92

PRESERVED: YES

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TEMPERATURE: ON ICE

CONT. INTEGRITY: MEETS STANDARD

SAMPLE INTEG: MEETS STANDARD

TEST NAME	RESULT	UNITS	ANALYZED	METHOD	LIMIT	
TETRACHLOROETHYLENE 1,1,1-TRICHLOROETHANE	<0.050 <0.050	PPM PPM		SW846 8010 SW846 8010	!	!

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05/13/94

LABORATORY REPORT

PAGE 1

H413 8477352 W61

CHAIN OF CUSTODY

HARDING LAWSON ASSOCIATES

ONE TOWER LANE

PRESERVED: YES

SUITE 1300

OAK BROOK TERRACE ,IL 60181

ATTN: BILL RENNER

SAMPLE 92300-H11090 B5-03/LIFT 3/SOIL/SAUER SUNDSTRAND/#20603.20.2

DATE COLLECTED 10/24/92

DATE RECEIVED 10/26/92 TEMPERATURE: ON ICE

CONT. INTEGRITY: MEETS STANDARD

SAMPLE INTEG: MEETS STANDARD

	TEST NAME	RESULT '	UNITS	ANALYZED	METHOD	LIMIT
	TETRACHLOROETHYLENE 1,1,1-TRICHLOROETHANE	<0.050 <0.050	PPM PPM		SW846 8010 SW846 8010	!
_	i, i, i-ikichlokoeinane	(0.050	PPM	10/26/92	5W846 8UIU	

PLEASE CONTACT CLIENT SERVICES WITH ANY QUESTIONS. <u>WATER SAMPLES ARE DISPOSED OF 30 DAYS AFTER RECEIPT; SOIL SAMPLES WILL BE DISPOSED OF 6 WEEKS AFTER RECEIPT; WASTE SAMPLES (NON-WATER, NON-SOIL) WILL BE RETURNED 6 WEEKS AFTER RECEIPT.</u> N/T = NOT TESTED, N/A = NOT APPLICABLE, N/D = NOT DETECTED.

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LABORATORY REPORT

PAGE 1

H413 8477352 W61

CHAIN OF CUSTODY

HARDING LAWSON ASSOCIATES

ONE TOWER LANE

SUITE 1300

OAK BROOK TERRACE

,IL 60181

ATTN: BILL RENNER

SAMPLE

92300-H11091 G5-03/LIFT 3/SOIL/SAUER SUNDSTRAND/#20603.20.2

DATE COLLECTED 10/24/92

DATE RECEIVED 10/26/92

PRESERVED: YES

TEMPERATURE: ON ICE

CONT. INTEGRITY: MEETS STANDARD

SAMPLE INTEG: MEETS STANDARD

TEST NAME	RESULT	UNITS	ANALYZED METHOD LIMIT	
TETRACHLOROETHYLENE	<0.050 <0.050	PPM PPM	10/26/92 SW846 8010	٠!
1,1,1 TRESTLEMENT	10.030	rri4	10/26/92 SW846 8010	

PLEASE CONTACT CLIENT SERVICES WITH ANY QUESTIONS. <u>WATER SAMPLES ARE DISPOSED OF 30 DAYS AFTER RECEIPT</u>; <u>SOIL SAMPLES WILL BE DISPOSED OF 6 WEEKS AFTER RECEIPT</u>; <u>WASTE SAMPLES (NON-WATER, NON-SOIL) WILL BE RETURNED 6 WEEKS AFTER RECEIPT</u>. N/T = NOT TESTED, N/A = NOT APPLICABLE, N/D = NOT DETECTED.

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Oakbrook Terrace Tower CHAIN OF CUSTODY FORM One Tower Lane, Suite 1300 Lab: CBC Env Labs Oakbrook Terrace, IL 60181 (708) 57 1-2162 • (708) 57 1-0439 Telecopy Samplers: Bove Shabino **ANALYSIS REQUESTED** Job Number: 20603 20,2 Name/Location: Save - Sund travel Project Manager: William Ronne Recorder: _ (Signature Required) #CONTAINERS & PRESERV. EPA 602/8020
EPA 624/8240
EPA 625/8270
ICP METALS
EPA 8015M/TPH SAMPLE NUMBER MATRIX DATE Chighen Ch Water Sediment Soil STATION DESCRIPTION/ OR LAB Unpres. H₂ SO₄ HNO₃ NOTES **NUMBER** Yr Wk Mo Dv Sea Time 400 H11087 920924 01 1400 1+11088 1400 PCE + TCA(111) in water # 11090 9209241400 PLE+TRA(1).1) in ethyland H 1109) Glycol Acct.# Acct. Name Quote # Date 92269 Julian Date DEPTH COL QA LAB NUMBER MTD CODE IN **MISCELLANEOUS CHAIN OF CUSTODY RECORD** CD FEET Wk Sea RELINQUISHED BY: (Signature) DATE/TIME 11,30 BELINQUISHED BY: ISignature! RECEIVED BY: \Signature) DATE/TIME RELINQUISHED BY: (Signature) RECEIVED BY: (Signature) DATE/TIME RELINQUISHED BY: (Signature) RECEIVED BY: (Signature) DATE/TIME DISPATCHED BY: (Signature) DATE/TIME RECEIVED FOR LAB BY: DATE/TIME (Signature) METHOD OF SHIPMENT Laboratory Copy Project Office Copy Field or Office Copy 6533

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6533

METHOD OF SHIPMENT

Job Number: Name/Location	ne, Suite 1300 ace, IL 60181 2 • (708) 571-0439 Telecopy	Samplers: D	TODY FORM 847735	ANALYSIS REQUE	
SOURCE CODE Water Water Sediment Soil XIBLAW	#CONTAINERS SAMPLE NUMBER OR LAB NUMBER OF LAB NUMBER Yr Wk S	DATE	STATION DESCRIPTION/ NOTES	EPA 601/8010 EPA 602/8020 EPA 624/8240 EPA 625/8270 ICP METALS EPA 8015M/TPH PCF	
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DISPATCHED BY: (Signature)

METHOD OF SHIPMENT

DATE/TIME

RECEIVED FOR LAB BY: (Signature)

DATE/TIME



LABORATORY REPORT

PAGE 1

H413 9302482 CA/CS/07* / /

CHAIN OF CUSTODY

HARDING LAWSON ASSOCIATES

ONE TOWER LANE

SUITE 1300

OAK BROOK TERRACE ,IL 60181

ATTN: MR. MARC SERNEL

LK 4

SAMPLE

93140-H11087 93-28/L4-5-19-1/SOIL/JOB# 20603,24.2/SUNSTRAND

AMES

DATE COLLECTED 05/19/93

DATE RECEIVED 05/20/93

PRESERVED: YES

TEMPERATURE: ON ICE

CONT. INTEGRITY: MEETS STANDARD

SAMPLE INTEG: MEETS STANDARD

TEST NAME	RESULT	UNITS	<u>ANALYZED</u>	METHOD	LIMIT
TETRACHLOROETHYLENE 1,1,1-TRICHLOROETHANE	<0.050 <0.050	PPM PPM	 05/20/93 05/20/93	SW846 8010 SW846 8010	
1,1,1-IKICHLOROLIHANE	(0.050	PPM	05/20/93	SW846 8010	

PLEASE CONTACT CLIENT SERVICES WITH ANY QUESTIONS. WATER SAMPLES ARE FISPOSED OF 30 DAYS AFTER RECEIPT; SOIL <u>SAMPLES WILL BE DISPOSED OF 6 WEEKS AFTER RECEIPT; WASTE SAMPLES (NON-WATER, NON-SOIL) WILL BE RETURNED 6 WEEKS</u> AFTER RECEIPT. N/T = NOT TESTED, N/A = NOT APPLICABLE, N/D = NOT DETECTED.

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= ELEVATED DETECTION LIMIT DUE TO SAMPLE QUANTITY. + = ELEVATED DETECTION LIMIT DUE TO EXTRACT VOLUME. AIHA ACCREDITED

APPROVAL



LABORATORY REPORT

PAGE 1

H413 9302482 CA/CS/07* / /

CHAIN OF CUSTODY

HARDING LAWSON ASSOCIATES

ONE TOWER LANE

SUITE 1300

OAK BROOK TERRACE

,IL 60181

ATTN: MR. MARC SERNEL

SAMPLE

93140-H11088 93-35-L4-5-19-1/SOIL/JOB# 20603,24.2/SUNSTRAND

DATE COLLECTED 05/19/93

DATE RECEIVED 05/20/93

PRESERVED: YES

TEMPERATURE: ON ICE

CONT. INTEGRITY: MEETS STANDARD

SAMPLE INTEG: MEETS STANDARD

TEST NAME	RESULT	<u>UNITS</u>	ANALYZED	METHOD	LIMIT
TETRACHLOROETHYLENE 1,1,1-TRICHLOROETHANE	0.22 <0.050	PPM . PPM	05/20/93 05/20/93	SW846 8010 SW846 8010	

PLEASE CONTACT CLIENT SERVICES WITH ANY QUESTIONS. WATER SAMPLES ARE DISPOSED OF 30 DAYS AFTER RECEIPT; SOIL SAMPLES WILL BE DISPOSED OF 6 WEEKS AFTER RECEIPT; WASTE SAMPLES (NON-WATER, NON-SOIL) WILL BE RETURNED 6 WEEKS AFTER RECEIPT. N/T = NOT TESTED, N/A = NOT APPLICABLE, N/D = NOT DETECTED.

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AIHA ACCREDITED

\$ = ELEVATED DETECTION LIMIT DUE TO SAMPLE QUANTITY. + = ELEVATED DETECTION LIMIT DUE TO EXTRACT VOLUME. APPROVAL WPS



LABORATORY REPORT

PAGE 1

H413 9302482 W31 CA/CS/07* / /

CHAIN OF CUSTODY

HARDING LAWSON ASSOCIATES

ONE TOWER LANE

SUITE 1300

OAK BROOK TERRACE ,IL 60181

ATTN: MR. MARC SERNEL

SAMPLE

93140-H11089 93-33-L4-5-19-1/SOIL/JOB# 20603,24.2/SUNSTRAND

AMES

DATE COLLECTED 05/19/93

DATE RECEIVED 05/20/93

PRESERVED: YES

TEMPERATURE: ON ICE

CONT. INTEGRITY: MEETS STANDARD

SAMPLE INTEG: MEETS STANDARD

TEST NAME	•	RESULT	UNITS		ANALYZED	METHOD	LIMIT
TETRACHLOROETHYLENE 1,1,1-TRICHLOROETHANE		<0.050 <0.050	PPM PPM			SW846 8010 SW846 8010	

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\$ = ELEVATED DETECTION LIMIT DUE TO SAMPLE QUANTITY. + = ELEVATED DETECTION LIMIT DUE TO EXTRACT VOLUME.

APPROVAL WRI



LABORATORY REPORT

PAGE 1

H413 9302482 CA/CS/07* / /

CHAIN OF CUSTODY

HARDING LAWSON ASSOCIATES

ATTN: MR. MARC SERNEL

ONE TOWER LANE

SUITE 1300

OAK BROOK TERRACE ,IL 60181

SAMPLE

93140-H11090 93-30-L4-5-19-1/SOIL/JOB# 20603,24.2/SUNSTRAND

AMES

DATE COLLECTED 05/19/93

DATE RECEIVED 05/20/93

PRESERVED: YES

TEMPERATURE: ON ICE

CONT. INTEGRITY: MEETS STANDARD

SAMPLE INTEG: MEETS STANDARD

TEST NAME	RESULT	UNITS		ANALYZED	<u>METHOD</u>	LIMIT
TETRACHLOROETHYLENE 1,1,1-TRICHLOROETHANE	<0.050 <0.050	PPM PPM	·	05/20/93 05/20/93	SW846 8010 SW846 8010	,

PLEASE CONTACT CLIENT SERVICES WITH ANY QUESTIONS. WATER SAMPLES ARE DISPOSED OF 30 DAYS AFTER RECEIPT; SOIL SAMPLES WILL BE DISPOSED OF 6 WEEKS AFTER RECEIPT; WASTE SAMPLES (NON-WATER, NON-SOIL) WILL BE RETURNED 6 WEEKS AFTER RECEIPT. N/T = NOT TESTED, N/A = NOT APPLICABLE, N/D = NOT DETECTED.

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LABORATORY REPORT

PAGE 1

H413 9302482 CA/CS/07* / / ·

CHAIN OF CUSTODY

HARDING LAWSON ASSOCIATES

ONE TOWER LANE

SUITE 1300

OAK BROOK TERRACE ,IL 60181

ATTN: MR. MARC SERNEL

SAMPLE

93140-H11091 93-478-L4-5-19-1/BLANK/SOIL/JOB# 20603,24.2/

SUNSTRAND-AMES

DATE COLLECTED 05/19/93

DATE RECEIVED 05/20/93

PRESERVED: YES

TEMPERATURE: ON ICE

CONT. INTEGRITY: MEETS STANDARD

SAMPLE INTEG: MEETS STANDARD

TEST_NAME	RESULT	UNITS		ANALYZED	METHOD	LIMIT
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PLEASE CONTACT CLIENT SERVICES WITH ANY QUESTIONS. WATER SAMPLES ARE DISPOSED OF 30 DAYS AFTER RECEIPT; SOIL SAMPLES WILL BE DISPOSED OF 6 WEEKS AFTER RECEIPT; WASTE SAMPLES (NON-WATER, NON-SOIL) WILL BE RETURNED 6 WEEKS AFTER RECEIPT. N/T = NOT TESTED, N/A = NOT APPLICABLE, N/D = NOT DETECTED.

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06/17/93

LABORATORY REPORT

PAGE 1

H413 9303333 W31 CA/CS/07* / /

CHAIN OF CUSTODY

HARDING LAWSON ASSOCIATES

ONE TOWER LANE

SUITE 1300

OAK BROOK TERRACE

.IL 60181

ATTN: MARC SERNEL

SAMPLE 93167-H11087 93-24-L5-6/

93167-H11087 93-24(L5)6/15-1/SOIL/PROJECT: SUNDSTRAND/AMES/

PROJECT# 20603-24.2

DATE COLLECTED 06/15/93

DATE RECEIVED 06/16/93

PRESERVED: YES

TEMPERATURE: ON ICE

CONT. INTEGRITY: MEETS STANDARD

SAMPLE INTEG: MEETS STANDARD

TEST NAME	RESULT	UNITS	ANALYZED	METHOD	LIMIT
TETRACHLOROETHYLENE 1,1,1-TRICHLOROETHANE	0.12 <0.050	PPM PPM		SW846 8010 SW846 8010	

PLEASE CONTACT CLIENT SERVICES WITH ANY QUESTIONS. <u>WATER SAMPLES ARE DISPOSED OF 30 DAYS AFTER RECEIPT</u>; <u>SOIL SAMPLES WILL BE DISPOSED OF 6 WEEKS AFTER RECEIPT</u>; <u>WASTE SAMPLES (NCG- /ATER, NON-SOIL) WILL BE RETURNED 6 WEEKS AFTER RECEIPT</u>. N/T = NOT TESTED, N/A = NOT APPLICABLE, N/D = NOT DETECTED.

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AIHA ACCREDITED

APPROVAL _________



LABORATORY REPORT

PAGE 1

H413 9303333 W31 CA/CS/07* / /

CHAIN OF CUSTODY

HARDING LAWSON ASSOCIATES

ONE TOWER LANE

SUITE 1300

OAK BROOK TERRACE

,IL 60181

ATTN: MARC SERNEL

SAMPLE

93167-H11088 93-35-L5-6/15-1/SOIL/PROJECT: SUNDSTRAND/AMES/

PROJECT# 20603-24.2

DATE COLLECTED 06/15/93

DATE RECEIVED 06/16/93

PRESERVED: YES

AIHA ACCREDITED

TEMPERATURE: ON ICE

CONT. INTEGRITY: MEETS STANDARD

SAMPLE INTEG: MEETS STANDARD

TEST NAME	RESULT	<u>UNITS</u>		ANALYZED	METHOD	LIMIT
TETRACHLOROETHYLENE 1,1,1-TRICHLOROETHANE	0.10 <0.050	PPM PPM	•		SW846 8010 SW846 8010	

_	PLEASE CONTACT CLIENT SERVICES WITH ANY QUESTIONS. WATER	SAMPLES ARE DISPOSED OF 30 DAYS AFTER RECEIPT; SOIL
ı	SAMPLES WILL BE DISPOSED OF 6 WEEKS AFTER RECEIPT; WASTE	SAMPLES (NON-WATER, NON-SOIL) WILL BE RETURNED 6 WEEKS
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140 East Ryan Road, Oak Creek, WI 53154-4599 • 414-764-7005 • FAX 414-<u>764-0486 • 1-800-422-2195</u>

Client Services Direct Line 414-768-7460 • WI DNR Lab Certification #241283020 • IEPA Lab Certification #100243



LABORATORY REPORT

PAGE 1

H413 9303333 CA/CS/07* / /

CHAIN OF CUSTODY

HARDING LAWSON ASSOCIATES

ONE TOWER LANE A **SUITE 1300**

OAK BROOK TERRACE ,IL 60181

ATTN: MARC SERNEL

SAMPLE

93167-H11089 93-23-L5-6/15-1/SOIL/PROJECT: SUNDSTRAND/AMES/

PROJECT# 20603-24.2

DATE COLLECTED 06/15/93

DATE RECEIVED 06/16/93

PRESERVED: YES

TEMPERATURE: ON ICE

CONT. INTEGRITY: MEETS STANDARD

SAMPLE INTEG: MEETS STANDARD

TEST NAME	RESULT	<u>UNITS</u>	ANALYZED	METHOD	LIMIT
TETRACHLOROETHYLENE 1,1,1~TRICHLOROETHANE	<0.050 <0.050	PPM PPM	06/17/93 06/17/93	SW846 8010 SW846 8010	

PLEASE CONTACT CLIENT SERVICES WITH ANY QUESTIONS. WATER SAMPLES ARE DISPOSED OF 30 DAYS AFTER RECEIPT; SOIL SAMPLES WILL BE DISPOSED OF 6 WEEKS AFTER RECEIPT; WASTE SAMPLES (NON-WATER, NON-SOIL) WILL BE RETURNED 6 WEEKS AFTER RECEIPT. N/T = NOT TESTED, N/A = NOT APPLICABLE, N/D = NOT DETECTED.

@ = ELEVATED DETECTION LIMIT DUE TO MATRIX INTERFERENCE. # = ELEVATED DETECTION LIMIT DUE TO SAMPLE CONCENTRATION.

\$ = ELEVATED DETECTION LIMIT DUE TO SAMPLE QUANTITY. + = ELEVATED DETECTION LIMIT DUE TO EXTRACT VOLUME.

AIHA ACCREDITED

APPROVAL ___



LABORATORY REPORT

PAGE 1

H413 9303333 W31 CA/CS/07* / /

CHAIN OF CUSTODY

HARDING LAWSON ASSOCIATES
ONE TOWER LANE SUITE 1300

OAK BROOK TERRACE ,IL 60181 ATTN: MARC SERNEL

SAMPLE

93167-H11090 93-33-L5-6/15-1/SOIL/PROJECT: SUNDSTRAND/AMES/

PROJECT# 20603-24.2

DATE COLLECTED 06/15/93

DATE RECEIVED 06/16/93

PRESERVED: YES

TEMPERATURE: ON ICE

CONT. INTEGRITY: MEETS STANDARD

SAMPLE INTEG: MEETS STANDARD

TEST NAME	RESULT	<u>UNITS</u>	•	ANALYZED	METHOD	LIMIT
TETRACHLOROETHYLENE 1,1,1-TRICHLOROETHANE	<0.050 <0.050	PPM PPM	\$.	06/17/93 06/17/93	SW846 8010 SW846 8010	

PLEASE CONTACT CLIENT SERVICES WITH ANY QUESTIONS. <u>WATER SAMPLES ARE [ISPOSED OF 30 DAYS AFTER RECEIPT; SOIL SAMPLES WILL BE DISPOSED OF 6 WEEKS AFTER RECEIPT; WASTE SAMPLES (NON-WATER, NON-SOIL) WILL BE RETURNED 6 WEEKS AFTER RECEIPT.</u> N/T = NOT TESTED, N/A = NOT APPLICABLE, N/D = NOT DETECTED.

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B = ELEVATED DETECTION LIMIT DUE TO SAMPLE QUANTITY. + = ELEVATED DETECTION LIMIT DUE TO EXTRACT VOLUME.

AIHA ACCREDITED



LABORATORY REPORT

PAGE 1

H413 9303333 W31 CA/CS/07* / /

CHAIN OF CUSTODY

HARDING LAWSON ASSOCIATES

ONE TOWER LANE

SUITE 1300

OAK BROOK TERRACE

,IL 60181

ATTN: MARC SERNEL

SAMPLE

93167-H11091 93-47C-L5-6/15-1/SOIL/PROJECT: SUNDSTRAND/AMES/

PROJECT# 20603-24.2

DATE COLLECTED 06/15/93

DATE RECEIVED 06/16/93

PRESERVED: YES

AIHA ACCREDITED

TEMPERATURE: ON ICE

CONT. INTEGRITY: MEETS STANDARD

SAMPLE INTEG: MEETS STANDARD

TEST NAME	RESULT	UNITS	ANALYZED	METHOD	LIMIT
TETRACHLOROETHYLENE 1,1,1-TRICHLOROETHANE	<0.050 <0.050	PPM PPM		SW846 8010 SW846 8010	

PLEASE CONTACT CLIENT SERVICES WITH ANY QUESTIONS. WATER SAMPLES ARE DISPOSED OF 30 DAYS AFTER RECEIPT; SOIL

SAMPLES WILL BE DISPOSED OF 6 WEEKS AFTER RECEIPT; WASTE SAMPLES (NON-WATER, NON-SOIL) WILL BE RETURNED 6 WEEKS

AFTER RECEIPT. N/T = NOT TESTED, N/A = NOT APPLICABLE, N/D = NOT DETECTION LIMIT DUE TO SAMPLE CONCENTRATION.

@ = ELEVATED DETECTION LIMIT DUE TO MATRIX INTERFERENCE. # = ELEVATEC DETECTION LIMIT DUE TO SAMPLE CONCENTRATION. \$ = ELEVATED DETECTION LIMIT DUE TO SAMPLE QUANTITY. + = ELEVATE: DETECTION LIMIT DUE TO EXTRACT VOLUME.

APPROVAL _____

Harding Lawson A Oat Forract One Tower Lane, Suite One Suite On	Recorder: NTAINERS RESERV. NUMBER: PORT DATE WITH THE PROPERTY PARTY PROPERTY PARTY PA	STATION DESCRIPTION	EPA 601/8010 EPA 602/8020 EPA 624/8240 EPA 625/8270 ICP METALS EPA 8015M/TPH EPA 8015M/TPH EPA 8015M/TPH	EQUESTED H 1 1 0 6 7 H 1 1 0 8 9 H 1 1 0 9 1 H 1 1 0 9 1
				1111092
LAB DEPTI NUMBER IN Yr Wk Seq FEET	MTD CODE MISCELLANEOUS	1	CUSTODY RECORD	
· · · · · · · · · · · · · · · · · · ·	13-40-25-6/15-1-4 1	RELINGUISHED BY: (Signature)	RECEIVED BY: (Signature) RECEIVED BY: (Signature) RECEIVED BY: (Signature)	DATE/TIME DATE/TIME DATE/TIME DATE/TIME
		RELINQUISHED BY: (Signature) ! DISPATCHED BY: (Signature) DATE/T	RECEIVED BY: (Signature) IME RECEIVED FOR LAB E (Signature)	DATE/TIME BY: DATE/TIME

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6533



09/15/93

LABORATORY REPORT

PAGE 1

H413 9306109 CA/CS/07* / /

CHAIN OF CUSTODY

HARDING LAWSON ASSOCIATES

ONE TOWER LANE

SUITE 1300

OAK BROOK TERRACE ,IL 60181

ATTN: MR. MARC SERNEL

SAMPLE

93257-H11089 93-17(L6)9/13-1/SOIL/SUNDSTRAND-AMES/

JOB# 20603, 20.2

DATE COLLECTED 09/13/93

DATE RECEIVED 09/14/93

PRESERVED: YES

TEMPERATURE: ON ICE

CONT. INTEGRITY: MEETS STANDARD

SAMPLE INTEG: MEETS STANDARD

TEST NAME	RESULT	<u>UNITS</u>		<u>ANALYZED</u>	METHOD	LIMIT
TETRACHLOROETHYLENE	0.075	PPM	•	09/15/93	SW846 8021	
1,1,1-TRICHLOROETHANE	<0.050	PPM		09/15/93	SW846 8021	

PLEASE CONTACT CLIENT SERVICES WITH ANY QUESTIONS. <u>WATER SAMPLES ARE DISPOSED OF 30 DAYS AFTER RECEIPT</u>; <u>SOIL</u> <u>SAMPLES WILL BE DISPOSED OF 6 WEEKS AFTER RECEIPT; WASTE SAMPLES (NON-WATER, NON-SOIL) WILL BE RETURNED 6 WEEKS</u> AFTER RECEIPT. N/T = NOT TESTED, N/A = NOT APPLICABLE, N/D = NOT DETECTED.

= ELEVATED DETECTION LIMIT DUE TO MATRIX INTERFERENCE. # = ELEVATED DETECTION LIMIT DUE TO SAMPLE CONCENTRATION.

\$ = ELEVATED DETECTION LIMIT DUE TO SAMPLE QUANTITY. AIHA ACCREDITED

+ = ELEVATED DETECTION LIMIT DUE TO EXTRACT VOLUME. APPROVAL LUND



09/15/93

LABORATORY REPORT

PAGE 1

H413 9306109 CA/CS/07* / /

CHAIN OF CUSTODY

HARDING LAWSON ASSOCIATES

ONE TOWER LANE

SUITE 1300

OAK BROOK TERRACE ,IL 60181

ATTN: MR. MARC SERNEL

SAMPLE

93257-H11087 93-12-L6-9/13-1/SOIL/SUNDSTRAND-AMES/

JOB# 20603, 20.2

DATE COLLECTED 09/13/93

DATE RECEIVED 09/14/93 ·

PRESERVED: YES

AIHA ACCREDITED

TEMPERATURE: ON ICE

CONT. INTEGRITY: MEETS STANDARD

SAMPLE INTEG: MEETS STANDARD

TEST NAME	RESULT	<u>UNITS</u>	•	<u>ANALYZED</u>	METHOD	LIMIT
TETRACHLOROETHYLENE 1,1,1-TRICHLOROETHANE	0.060 <0.050	PPM PPM	•		SW846 8010 SW846 8010	

PLEASE CONTACT CLIENT SERVICES WITH ANY QUESTIONS. WATER SAMPLES ARE DISPOSED OF 30 DAYS AFTER RECEIPT; SOIL SAMPLES WILL BE DISPOSED OF 6 WEEKS AFTER RECEIPT; WASTE SAMPLES (NON-WATER, NON-SOIL) WILL BE RETURNED 6 WEEKS AFTER RECEIPT. N/T = NOT TESTED, N/A = NOT APPLICABLE, N/D = NOT DETECTED.

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09/15/93.

LABORATORY REPORT

PAGE 1

H413 9306109 W31 CA/CS/07* / /

CHAIN OF CUSTODY

HARDING LAWSON ASSOCIATES

ONE TOWER LANE

SUITE 1300

OAK BROOK TERRACE ,IL 60181

ATTN: MR. MARC SERNEL

SAMPLE

93257-H11088 93-42-L6-9/13-1/SOIL/SUNDSTRAND-AMES/

JOB# 20603, 20.2

DATE COLLECTED 09/13/93

DATE RECEIVED 09/14/93

PRESERVED: YES

TEMPERATURE: ON ICE

CONT. INTEGRITY: MEETS STANDARD

SAMPLE INTEG: MEETS STANDARD

TEST NAME	RESULT	<u>UNITS</u>	<u>ANALYZED</u>	METHOD	LIMIT
TETRACHLOROETHYLENE 1,1,1-TRICHLOROETHANE	0.055 <0.050	1 1 1 1		SW846 8021 SW846 8021	

PLEASE CONTACT CLIENT SERVICES WITH ANY QUESTIONS. WATER SAMPLES ARE DISPOSED OF 30 DAYS AFTER RECEIPT; SOIL SAMPLES WILL BE DISPOSED OF 6 WEEKS AFTER RECEIPT; WASTE SAMPLES (NON-WATER, NON-SOIL) WILL BE RETURNED 6 WEEKS AFTER RECEIPT. N/T = NOT TESTED, N/A = NOT APPLICABLE, N/D = NOT DETECTED.

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APPROVAL WAV



09/15/93

LABORATORY REPORT

PAGE 1

H413 9306109 CA/CS/07* / /

CHAIN OF CUSTODY

HARDING LAWSON ASSOCIATES

ONE TOWER LANE

SUITE 1300

OAK BROOK TERRACE ,IL 60181

ATTN: MR. MARC SERNEL

SAMPLE

93257-H11090 93-14-L6-9/13-1/SOIL/SUNDSTRAND-AMES/

JOB# 20603, 20.2

DATE COLLECTED 09/13/93

DATE RECEIVED 09/14/93

PRESERVED: YES

TEMPERATURE: ON ICE

CONT. INTEGRITY: MEETS STANDARD

SAMPLE INTEG: MEETS STANDARD

TEST NAME	RESULT	<u>UNITS</u>	<u>ANALYZED</u>	METHOD	LIMIT
TETRACHLOROETHYLENE 1,1,1-TRICHLOROETHANE	<0.050 <0.050	PPM PPM		SW846 8021 SW846 8021	

PLEASE CONTACT CLIENT SERVICES WITH ANY QUESTIONS. WATER SAMPLES ARE DISPOSED OF 30 DAYS AFTER RECEIPT; SOIL SAMPLES WILL BE DISPOSED OF 6 WEEKS AFTER RECEIPT; WASTE SAMPLES (NON-WATER, NON-SOIL) WILL BE RETURNED 6 WEEKS AFTER RECEIPT. N/T = NOT TESTED, N/A = NOT APPLICABLE, N/D = NOT DETECTED.

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\$ = ELEVATED DETECTION LIMIT DUE TO SAMPLE QUANTITY. + = ELEVATED DETECTION LIMIT DUE TO EXTRACT VOLUME. APPROVAL _ WILL AIHA ACCREDITED

Job Number: 20603, 20.2 Name/Location: Sundstrand—Ames Project Manager: Nogl April Becorder: A	USTODY FORM Lab: BC ANALYSIS REQUESTED Analysis Requised Signature Required)
MATRIX #CONTAINERS & SAMPLE NUMBER — DATE OR LAB NUMBER NUMBER YESSON WATER SEG OF MO DY TIME	SAMPLE SAMPLE SAMPLE SOLO - PCE PA 8015M/TPH
48 X X 93-12-L6-9/13-1 48 X 93-17-L6-9/13-1 48 X 93-17-L6-9/13-1 48 X 93-13-L6-9/13-1 48 X 93-37-L6-9/13-1 48 X 93-37-L6-9/13-1 48 X 93-20-L6-9/13-1 48 X 93-20-L6-9/13-1	69/13/93 0740 X H 1 1 0 8 7 69/13/93 0743 X H 1 1 0 8 8 09/13/93 0746 X H 1 1 0 8 9
LAB NUMBER IN MTD CODE FEET CD MISCELLANEOUS FOLLOWING SAMPLES VATIL (N STRUCTED TO ANALYZE: 93-13-L6-9/13-1 93-37-L6-9/13-1 93-37-L6-9/13-1	CHAIN OF CUSTODY RECORD RELINDUISHED BY: (Signature) RECEIVED BY: (Signature) DATE/TIME

DATE/TIME RELINQUISHED BY: (Signature) RECEIVED BY: (Signature) DISPATCHED BY: (Signature) RECEIVED FOR LAB BY: (Signature) DATE/TIME DATE/TIME # X 1 2 2 METHOD OF SHIPMENT 6533



LABORATORY REPORT

PAGE 1

H413 9306536 CA/CS/07* / /

CHAIN OF CUSTODY

HARDING LAWSON ASSOCIATES

ONE TOWER LANE

SUITE 1300

OAK BROOK TERRACE ,IL 60181

ATTN: MARC SERNEL

SAMPLE

LIFT 7

93267-H11088 93-18(L7)-9-23-1/SOIL/PROJECT 20603.20.2-SUNDSTRAND

AMES

DATE COLLECTED 09/23/93

DATE RECEIVED 09/24/93

PRESERVED: YES

AIHA ACCREDITED

TEMPERATURE: ON ICE

CONT. INTEGRITY: MEETS STANDARD

SAMPLE INTEG: MEETS STANDARD

TEST NAME	RESULT	<u>UNITS</u>	ANALYZED	METHOD	LIMIT
TETRACHLOROETHYLENE 1,1,1-TRICHLOROETHANE	<0.050 0.085	PPM . PPM		SW846 8021 SW846 8021	
			03724733	3110-70 0021	

PLEASE CONTACT CLIENT SERVICES WITH ANY QUESTIONS. <u>WATER SAMPLES ARE DISPOSED OF 30 DAYS AFTER RECEIPT</u>; <u>SOIL</u> <u>SAMPLES WILL BE DISPOSED OF 6 WEEKS AFTER RECEIPT; WASTE SAMPLES (NON-WATER, NON-SOIL) WILL BE RETURNED 6 WEEKS</u> AFTER RECEIPT. N/T = NOT TESTED, N/A = NOT APPLICABLE, N/D = NOT DETECTED.

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\$ = ELEVATED DETECTION LIMIT DUE TO SAMPLE QUANTITY. + = ELEVATED DETECTION LIMIT DUE TO EXTRACT, VOLUME. APPROVAL



LABORATORY REPORT

PAGE 1

H413 9306536 W15 CA/CS/07* / /

CHAIN OF CUSTODY

HARDING LAWSON ASSOCIATES

ONE TOWER LANE

SUITE 1300

OAK BROOK TERRACE ,IL 60181

ATTN: MARC SERNEL

SAMPLE

93267-H11089 93-28-L7-9-23-1/SOIL/PROJECT 20603.20.2-SUNDSTRAND

AMES

DATE COLLECTED 09/23/93

DATE RECEIVED 09/24/93

PRESERVED: YES

TEMPERATURE: ON ICE

CONT. INTEGRITY: MEETS STANDARD

SAMPLE INTEG: MEETS STANDARD

TEST NAME	RESULT	UNITS	ANALYZED	METHOD	LIMIT
TETRACHLOROETHYLENE 1,1,1-TRICHLOROETHANE	<0.050 <0.050			SW846 8021 SW846 8021	

PLEASE CONTACT CLIENT SERVICES WITH ANY QUESTIONS. WATER SAMPLES ARE DISPOSED OF 30 DAYS AFTER RECEIPT; SOIL SAMPLES WILL BE DISPOSED OF 6 WEEKS AFTER RECEIPT; WASTE SAMPLES (NON-WATER, NON-SOIL) WILL BE RETURNED 6 WEEKS AFTER RECEIPT. N/T = NOT TESTED, N/A = NOT APPLICABLE, N/D = NOT DETECTED.

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\$ = ELEVATED DETECTION LIMIT DUE TO SAMPLE QUANTITY.

AIHA ACCREDITED



LABORATORY REPORT

PAGE 1

H413 9306536 W15 CA/CS/07* / /

CHAIN OF CUSTODY

HARDING LAWSON ASSOCIATES

ONE TOWER LANE

SUITE 1300

OAK BROOK TERRACE ,IL 60181

ATTN: MARC SERNEL

SAMPLE

93267-H11090 93-43-L7-9-23-1/SOIL/PROJECT 20603.20.2-SUNDSTRAND

AMES

DATE COLLECTED 09/23/93

DATE RECEIVED 09/24/93

PRESERVED: YES

TEMPERATURE: ON ICE

CONT. INTEGRITY: MEETS STANDARD

.SAMPLE INTEG: MEETS STANDARD

TEST NAME	. ~	RESULT	٠	<u>UNITS</u>		ANALYZED	METHOD	LIMIT
TETRACHLOROETHYLENE 1,1,1-TRICHLOROETHANE		<0.050 <0.050		PPM PPM	٠		SW846 8021 SW846 8021	

PLEASE CONTACT CLIENT SERVICES WITH ANY QUESTIONS. WATER SAMPLES ARE DISPOSED OF 30 DAYS AFTER RECEIPT; SOIL SAMPLES WILL BE DISPOSED OF 6 WEEKS AFTER RECEIPT; WASTE SAMPLES (NON-WATER, NON-SOIL) WILL BE RETURNED 6 WEEKS AFTER RECEIPT. N/T = NOT TESTED, N/A = NOT APPLICABLE, N/D = NOT DETECTED.

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\$ = ELEVATED DETECTION LIMIT DUE TO SAMPLE QUANTITY. + = ELEVATED DETECTION LIMIT DUE TO EXTRACT, VOLUME. APPROVAL _____ML AIHA ACCREDITED



LABORATORY REPORT

PAGE 1

H413 9306536 W15

CHAIN OF CUSTODY

HARDING LAWSON ASSOCIATES

ONE TOWER LANE

SUITE 1300

OAK BROOK TERRACE

,IL 60181

ATTN: MARC SERNEL

SAMPLE

93267-H11087 93-29-L7-9-23-1/SOIL/PROJECT 20603.20.2-SUNDSTRAND

AMES

DATE COLLECTED 09/23/93

DATE RECEIVED 09/24/93

PRESERVED: YES

AIHA ACCREDITED

TEMPERATURE: ON ICE

CONT. INTEGRITY: MEETS STANDARD

SAMPLE INTEG: MEETS STANDARD

TEST NAME	RESULT	<u>UNITS</u>	•	ANALYZED	METHOD	LIMIT
TETRACHLOROETHYLENE	<0.050	PPM	•		SW846 8021	
1,1,1-TRICHLOROETHANE	<0.050	PPM		09/24/93	SW846 8021	

PLEASE CONTACT CLIENT SERVICES WITH ANY QUESTIONS. WATER SAMPLES ARE DISPOSED OF 30 DAYS AFTER RECEIPT; SOIL SAMPLES WILL BE DISPOSED OF 6 WEEKS AFTER RECEIPT; WASTE SAMPLES (NON-WATER, NON-SOIL) WILL BE RETURNED 6 WEEKS AFTER RECEIPT. N/T = NOT TESTED, N/A = NOT APPLICABLE, N/D = NOT DETECTED.

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\$ = ELEVATED DETECTION LIMIT DUE TO SAMPLE QUANTITY. + = ELEVATED DETECTION LIMIT DUE TO EXTRACT VOLUME.

APPROVAL

Harding Lawson Associatos Oakbrook Terrace Tower One Tower Lane, Suite 1300 Oakbrook Terrace, IL 60181 (708) 571-2162 • (708) 571-0439 Tolecopy	CHAIN OF CUSTODY FORM Samplers: Marcus E. Sernel	Lab: CBC Environmental ANALYSIS REQUESTED
Job Number: <u>Z0603, Z0.2</u> Name/Location: <u>Sundstrand-Ame</u> Project Manager: <u>Noel Daniel</u>	S m	(REE 1/1/TCA Only
MATRIX #CONTAINERS SAMPLE NUMBER OR CODE NOT THE NUMBER OF	PATE STATION DESCRIPTION TO NOTES SAMPLE NUMBER Yr Mo Dy Time 93 09 23 1 1 0 0 93 - 29 - L7 - 9/23 - 1 0 93 - 18 - L7 - 9/23 - 1 0 93 - 28 - L7 - 9/23 - 1 0 93 - 28 - L7 - 9/23 - 1 0 93 - 43 - L7 - 9/23 - 1 0 93 - 30 - 27 - 9/23 - 1 0 93 - 30 - 27 - 9/23 - 1 0 0 93 - 30 - 27 - 9/23 - 1 0 0 93 - 30 - 27 - 9/23 - 1 0 0 93 - 30 - 27 - 9/23 - 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	
* HOLD 93-30-67-	9/23-1 UNTIL FURTHER NOTICE	
LAB DEPTH COL QA	SCELLANEOUS CHAIN OF	CUSTODY RECORD
	Marus & Jernel (RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature) 9/24/41 DATE/TIME
	The state of the s	RECEIVED BY: (Signature) RECEIVED BY: (Signature) DATE/TIME DATE/TIME
	DISPATCHED BY: (Signature) DATE/1	RECEIVED FOR LAB BY: DATE/TIME (Signature)
	METHOD OF SHIPMENT	

REC'D OCT 1 1 1993



10/06/93

LABORATORY REPORT

PAGE 1

H413 9306886 CA/CS/07* / /

CHAIN OF CUSTODY

HARDING LAWSON ASSOCIATES

ONE TOWER LANE

SUITE 1300

OAK BROOK TERRACE

,IL 60181

ATTN: MARC SERNEL

LIFT 8

SAMPLE

93278-H11089 93-35(L8)-10-4-1/SOIL/SUNDSTRAND/AMES-20603,24.2

DATE COLLECTED 10/04/93

DATE RECEIVED 10/05/93

PRESERVED: YES

TEMPERATURE: GN ICE

CONT. INTEGRITY: MEETS STANDARD

SAMPLE INTEG: MEETS STANDARD

TEST NAME	RESULT	<u>UNITS</u>	ANALYZED	METHOD	LIMIT
TETRACHLOROETHYLENE 1,1,1-TRICHLOROETHANE	<0.050 <0.050	PPM PPM		SW846 8021 SW846 8021	

PLEASE CONTACT CLIENT SERVICES WITH ANY QUESTIONS. WATER SAMPLES ARE DISPOSED OF 30 DAYS AFTER RECEIPT; SOIL SAMPLES WILL BE DISPOSED OF 6 WEEKS AFTER RECEIPT; WASTE SAMPLES (NON-WATER, NON-SOIL) WILL BE RETURNED 6 WEEKS AFTER RECEIPT. N/T = NOT TESTED, N/A = NOT APPLICABLE, N/D = NOT DETECTED.

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= ELEVATED DETECTION LIMIT DUE TO SAMPLE QUANTITY. AIHA ACCREDITED

APPROVAL WILL



10/06/93

LABORATORY REPORT

PAGE 1

H413 9306886 W31 CA/CS/07* / /

CHAIN OF CUSTODY

HARDING LAWSON ASSOCIATES

ONE TOWER LANE

SUITE 1300

OAK BROOK TERRACE ,IL 60181

ATTN: MARC SERNEL

93278-H11087 93-28-L8-10-4-1/SOIL/SUNDSTRAND/AMES-20603,24.2 SAMPLE

DATE COLLECTED 10/04/93

DATE RECEIVED 10/05/93

PRESERVED: YES

TEMPERATURE: ON ICE

CONT. INTEGRITY: MEETS STANDARD

SAMPLE INTEG: MEETS STANDARD

TEST NAME	RESULT	UNITS	ANALYZED	METHOD	LIMIT
TETRACHLOROETHYLENE 1,1,1-TRICHLOROETHANE	<0.050 <0.050	PPM PPM		SW846 8021 SW846 8021	,

PLEASE CONTACT CLIENT SERVICES WITH ANY QUESTIONS. WATER SAMPLES ARE DISPOSED OF 30 DAYS AFTER RECEIPT; SOIL SAMPLES WILL BE DISPOSED OF 6 WEEKS AFTER RECEIPT; WASTE SAMPLES (NON-WATER, NON-SOIL) WILL BE RETURNED 6 WEEKS

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APPROVAL WOY AIHA ACCREDITED



10/06/93

LABORATORY REPORT

PAGE 1

H413 9306886 W31 CA/CS/07* / /

CHAIN OF CUSTODY

HARDING LAWSON ASSOCIATES

ONE TOWER LANE

SUITE 1300

OAK BROOK TERRACE

,IL 60181

ATTN: MARC SERNEL

93278-H11088 93-40-L8-10-4-1/SOIL/SUNDSTRAND/AMES-20603,24.2 SAMPLE

DATE COLLECTED 10/04/93

DATE RECEIVED . 10/05/93

PRESERVED: YES

TEMPERATURE: ON ICE

CONT. INTEGRITY: MEETS STANDARD

SAMPLE INTEG: MEETS STANDARD

TEST NAME	RESULT	UNITS	<u>ANALYZED</u>	METHOD	LIMIT
TETRACHLOROETHYLENE 1,1,1-TRICHLOROETHANE	<0.050 <0.050	PPM PPM		SW846 8021 SW846 8021	

PLEASE CONTACT CLIENT SERVICES WITH ANY QUESTIONS. WATER SAMPLES ARE DISPOSED OF 30 DAYS AFTER RECEIPT; SOIL SAMPLES WILL BE DISPOSED OF 6 WEEKS AFTER RECEIPT; WASTE SAMPLES (NON-WATER, NON-SOIL) WILL BE RETURNED 6 WEEKS AFTER RECEIPT. N/T = NOT TESTED, N/A = NOT APPLICABLE, N/D = NOT DETECTED.

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APPROVAL LURY AIHA ACCREDITED



10/06/93

LABORATORY REPORT

PAGE 1

H413 9306886 CA/CS/07* / /

CHAIN OF CUSTODY

HARDING LAWSON ASSOCIATES

ONE TOWER LANE

SUITE 1300

OAK BROOK TERRACE ,IL 60181

ATTN: MARC SERNEL

93278-H11090 93-30-L8-10-4-1/SOIL/SUNDSTRAND/AMES-20603,24.2 SAMPLE

DATE COLLECTED 10/04/93

DATE RECEIVED 10/05/93

PRESERVED: YES

TEMPERATURE: ON ICE

CONT. INTEGRITY: MEETS STANDARD

SAMPLE INTEG: MEETS STANDARD

TEST NAME	RESULT	UNITS	<u>A</u>	NALYZED	METHOD	LIMIT
TETRACHLOROETHYLENE 1,1,1-TRICHLOROETHANE	<0.050 <0.050	PPM PPM	_		SW846 8021 SW846 8021	

PLEASE CONTACT CLIENT SERVICES WITH ANY QUESTIONS. WATER SAMPLES ARE DISPOSED OF 30 DAYS AFTER RECEIPT; SOIL SAMPLES WILL BE DISPOSED OF 6 WEEKS AFTER RECEIPT; WASTE SAMPLES (NON-WATER, NON-SOIL) WILL BE RETURNED 6 WEEKS AFTER RECEIPT. N/T = NOT TESTED, N/A = NOT APPLICABLE, N/D = NOT DETECTED.

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= ELEVATED DETECTION LIMIT DUE TO SAMPLE QUANTITY. + = ELEVATED DETECTION LIMIT DUE TO EXTRACT VOLUME. APPROVAL LUK AIHA ACCREDITED

THE PEOPLE WE SERVE . . . CARE ABOUT THE ENVIRONMENT

140 E. RYAN ROAD · OAK CREEK · WI · 53154 · 414-764-7005 · FAX 414-764-0486 · 1-800-422-2195 · CLIENT SERVICES 414-768-7460 (5) MATRIX ANALYSES REQUESTED (METHODS & DETECTION LIMITS) LAB USE ONLY P.O.# CONTAINERS (3) UST ACCT # | | | | | PRESERVATION # OF CONTAIN
SOIL
WATER
WASTE
WWIP SLUDGE
OTHER 2 PROJECT NAME/#:(STATE J. DATE **WPDES** PROJECT MANAGER: 70603 14.7 GRAB (TOWNOSTILE) **NPDES** QUOTE # 1010 11 SAMPLER: MES RCRA (7) REMARKS TIME DATE (2) SAMPLE IDENTIFICATION -N-016.8 14- hour Tunkerent 0830 93-28-68-10/4-Nore 3-40-L8-10/4-10/01/93 0900 AM) 166 -35-18-10/11-O 1704/93 0915 -20-L8-10/4--38-L8-10/4-3/04/93 92-27-18-10/11-FM gin. AM (9) RELINQUISHED BY: DATE TIME TIME RECEIVED BY: DATE (8) TURNAROUND TIME IN WORKING DAYS: 10 111 FF NORMAL To Hai AM; * FOR EXPEDITED TURNAROUND TIME CALL CLIENT SERVICES TO CONFIRM AVAILABILITY AT 414-768-7460 EXPEDITED RESULIS TO BE TRANSMITTED VIA: AM AM PHONE FAX NUMBER: 515-2.39-6304 PHONE NUMBER: ΑM AΜ CONTACT: (10) DATA PACKAGE OPTIONS AVAILABLE FOR A FEE (PLEASE CIRCLE IF REQUIRED) PACKAGE A IN CASE WE HAVE QUESTIONS WHEN SAMPLES ARRIVE, CBC ENVIRONMENTAL LABORATORIES SHOULD CALL: SEE BACK FOR COMPLETE PACKAGE DESCRIPTIONS (11)(12) OTHER SPECIAL INSTRUCTIONS:

SEND REPORTS TO:



LABORATORY REPORT

PAGE 1

H413 9307065 W15 CA/CS/07* / /

CHAIN OF CUSTODY .

HARDING LAWSON ASSOCIATES

ONE TOWER LANE

OAK BROOK TERRACE ,IL 60181

ATTN: MR. MARC SERNEL

LIFT 9

SAMPLE

93284-H11087 93-17(L9)10/8-1/SOIL/PROJECT # 20603,24.2

DATE COLLECTED 10/08/93

DATE RECEIVED 10/11/93

PRESERVED: YES

TEMPERATURE: ON ICE

AIHA ACCREDITED

CONT. INTEGRITY: MEETS STANDARD

SAMPLE INTEG: MEETS STANDARD

TEST NAME	RESULT	UNITS	ANALYZED	<u>METHOD</u>	LIMIT
TETRACHLOROETHYLENE 1,1,1-TRICHLOROETHANE	<0.050 <0.050	PPM PPM		SW846 8010 SW846 8010	

PLEASE CONTACT CLIENT SERVICES WITH ANY QUESTIONS. WATER SAMPLES ARE DISPOSED OF 30 DAYS AFTER RECEIPT; SOIL SAMPLES WILL BE DISPOSED OF 6 WEEKS AFTER RECEIPT; WASTE SAMPLES (NON-WATER, NON-SOIL) WILL BE RETURNED 6 WEEKS AFTER RECEIPT. N/T = NOT TESTED, N/A = NOT APPLICABLE, N/D = NOT DETECTED.

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APPROVAL 4



LABORATORY REPORT

PAGE 1

H413 9307065 CA/CS/07* / /

CHAIN OF CUSTODY

HARDING LAWSON ASSOCIATES

ONE TOWER LANE

OAK BROOK TERRACE ,IL 60181

ATTN: MR. MARC SERNEL

SAMPLE

93284-H11089 93-27-L9-10/8-1/SOIL/PROJECT # 20603,24.2

DATE COLLECTED 10/08/93 DATE RECEIVED 10/11/93

PRESERVED: YES

TEMPERATURE: ON ICE

CONT. INTEGRITY: MEETS STANDARD

SAMPLE INTEG: MEETS STANDARD

TEST NAME	RESULT	<u>UNITS</u>	<u>ANALYZED</u>	METHOD	LIMIT
TETRACHLOROETHYLENE 1,1,1-TRICHLOROETHANE	<0.050 <0.050	PPM .		SW846 8021 SW846 8021	

PLEASE CONTACT CLIENT SERVICES WITH ANY QUESTIONS. WATER SAMPLES ARE DISPOSED OF 30 DAYS AFTER RECEIPT; SOIL SAMPLES WILL BE DISPOSED OF 6 WEEKS AFTER RECEIPT; WASTE SAMPLES (NON-WATER, NON-SOIL) WILL BE RETURNED 6 WEEKS AFTER RECEIPT. N/T = NOT TESTED, N/A = NOT APPLICABLE, N/D = NOT DETECTED.

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+ = ELEVATED DETECTION LIMIT DUE TO EXTRACT VOLUME. APPROVAL WK



LABORATORY REPORT

PAGE 1

H413 9307065 CA/CS/07* / /

CHAIN OF CUSTODY

HARDING LAWSON ASSOCIATES

ONE TOWER LANE

SUITE 1300

OAK BROOK TERRACE ,IL 60181

ATTN: MR. MARC SERNEL

SAMPLE

93284-H11090 93-28-L9-10/8-1/SOIL/PROJECT # 20603,24.2

DATE COLLECTED 10/08/93

DATE RECEIVED 10/11/93

PRESERVED: YES

TEMPERATURE: ON ICE

CONT. INTEGRITY: MEETS STANDARD

SAMPLE INTEG: MEETS STANDARD

TEST NAME	RESULT	UNITS	<u>ANALYZED</u>	METHOD	LIMIT
TETRACHLOROETHYLENE	0.20	PPM	10/12/93	SW846 8021	
1,1,1-TRICHLOROETHANE	0.090	PPM	10/12/93	SW846 8021	

PLEASE CONTACT CLIENT SERVICES WITH ANY QUESTIONS. WATER SAMPLES ARE DISPOSED OF 30 DAYS AFTER RECEIPT; SOIL SAMPLES WILL BE DISPOSED OF 6 WEEKS AFTER RECEIPT; WASTE SAMPLES (NON-WATER, NON-SOIL) WILL BE RETURNED 6 WEEKS AFTER RECEIPT. N/T = NOT TESTED, N/A = NOT APPLICABLE, N/D = NOT DETECTED.

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AIHA ACCREDITED



LABORATORY REPORT

PAGE 1

H413 9307065 W15 CA/CS/07* / /

CHAIN OF CUSTODY

HARDING LAWSON ASSOCIATES

ONE TOWER LANE SUITE 1300

OAK BROOK TERRACE ,IL 60181

ATTN: MR. MARC SERNEL

SAMPLE

93284-H11088 93-34-L9-10/8-1/SOIL/PROJECT # 20603,24.2

DATE COLLECTED 10/08/93 DATE RECEIVED 10/11/93

PRESERVED: YES

TEMPERATURE: ON ICE

CONT. INTEGRITY: MEETS STANDARD

SAMPLE INTEG: MEETS STANDARD

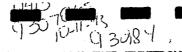
TEST NAME	RESULT	UNITS	ANALYZED	<u>METHOD</u>	LIMIT
TETRACHLOROETHYLENE 1,1,1-TRICHLOROETHANE	<0.050 <0.050	PPM PPM		SW846 8021 SW846 8021	

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AIHA ACCREDITED

APPROVAL WW



THE PEOPLE WE SERVE . . . CARE ABOUT THE ENVIRONMENT

140 E. RYAN ROAD · OAK CREEK · WI · 53154 · 414-764-7005 · FAX 414-764-0486 · 1-800-422-2195 · CLIENT SERVICES 414-768-7460 (5) MATRIX ANALYSES REQUESTED (METHODS & DETECTION LIMITS) TAB USE ONLY P.O.# CONTAINERS (6) (3) UST ACCT # PROJECT NAME/#: 20603,24.7 PRESERVATION PCE ONL SLUDGE STATE J. DATE WPDES PROJECT MANAGER: GRAB ()
COVROSITIE' **NPDES** OUOTE # SAMPLER: //aux SOIL WATER WASTE OTHER RCRA 0/0 GRAB Q (7)REMARKS DATE TIME a⊭ (2) SAMPLE IDENTIFICATION OO AM 24-110VR 11OR 10/3/97 HM1 24.16008. M 10/8/93 1: 0 NOC 3410 EMI) 24- HOUR 13/8/93 FM ΔM 24- HOUR 10/3/93 PM¥ MA 1/5 laz ΕMX 10/3/93 PMX 10/5/93 0 93-20- 69- 10/8-PMX AM FM AM 1月170年 Εľ H٧ RELINQUISHED BY: RECEIVED BY: DATE TIME DATE TIME **(**9) (8) TURNAROUND TIME IN WORKING DAYS: 717 Weer (West) 10lulu 10 NORMAL 730 /PM AΜ AM-* FOR EXPEDITED TURNAROUND TIME CALL CLIENT SERVICES TO H٧ CONFIRM AVAILABILITY AT 414-768-7460 AM ΔМ PHONE EXPEDITED RESULTS TO BE TRANSMITTED VIA: AM AM FAX NUMBER: 515-239-6304 PHONE NUMBER: AM AM CONTACT: ΑM AM (10) DATA PACKAGE OPTIONS AVAILABLE FOR A FEE (PLEASE CIRCLE IF REQUIRED) PACKAGE A .SEE BACK FOR COMPLETE PACKAGE DESCRIPTIONS В C D IN CASE WE HAVE QUESTIONS WHEN SAMPLES ARRIVE, CBC ENVIRONMENTAL LABORATORIES SHOULD CALL: (11)(12) OTHER SPECIAL INSTRUCTIONS: YOLLY PHONE: C1C. 739-1313

SEND REPORTS TO:



LABORATORY REPORT

PAGE 1

H413 9307437 CA/CS/07* / /

CHAIN OF CUSTODY .

HARDING LAWSON ASSOCIATES

ONE TOWER LANE

SUITE 1300

OAK BROOK TERRACE ,IL 60181

ATTN: MR. MARC SERNEL

LIFT 10

SAMPLE

93295-H11087 93-25(L10)-10-21-1/SOIL/SAUER-SUNDSTRAND/20603,24.2

DATE COLLECTED 10/21/93

DATE RECEIVED 10/22/93

PRESERVED: YES

TEMPERATURE: ON ICE

CONT. INTEGRITY: MEETS STANDARD

SAMPLE INTEG: MEETS STANDARD

TEST NAME .	RESULT	UNITS		ANALYZED	METHOD	LIMIT
TETRACHLOROETHYLENE	0.070	PPM		10/22/93	SW846 8021	
1,1,1-TRICHLOROETHANE	<0.050	PPM	•	10/22/93	SW846 8021	

PLEASE CONTACT CLIENT SERVICES WITH ANY QUESTIONS. WATER SAMP<u>LES ARE DISPOSED OF 30 DAYS AFTER RECEIPT</u>; <u>SOIL</u> SAMPLES WILL BE DISPOSED OF 6 WEEKS AFTER RECEIPT; WASTE SAMPLES (NON-WATER, NON-SOIL) WILL BE RETURNED 6 WEEKS AFTER RECEIPT. N/T = NOT TESTED, N/A = NOT APPLICABLE, N/D = NOT DETECTED.

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= ELEVATED DETECTION LIMIT DUE TO SAMPLE QUANTITY. AIHA ACCREDITED



LABORATORY REPORT

PAGE 1

H413 9307437 CA/CS/07* / /

CHAIN OF CUSTODY

HARDING LAWSON ASSOCIATES

ONE TOWER LANE

SUITE 1300

OAK BROOK TERRACE ,IL 60181

ATTN: MR. MARC SERNEL

SAMPLE

93295-H11088 93-27-L10-10-21-1/SOIL/SAUER-SUNDSTRAND/20603,24.2

DATE COLLECTED 10/21/93

DATE RECEIVED 10/22/93

PRESERVED: YES

TEMPERATURE: ON ICE

CONT. INTEGRITY: MEETS STANDARD

SAMPLE INTEG: MEETS STANDARD

TEST NAME	RESULT	UNITS	<u>ANALYZED</u>	METHOD	LIMIT
TETRACHLOROETHYLENE 1,1,1-TRICHLOROETHANE	0.061 <0.050	PPM PPM		SW846 8021 SW846 8021	

PLEASE CONTACT CLIENT SERVICES WITH ANY QUESTIONS. WATER SAMPLES ARE DISPOSED OF 30 DAYS AFTER RECEIPT; SOIL SAMPLES WILL BE DISPOSED OF 6 WEEKS AFTER RECEIPT; WASTE SAMPLES (NON-WATER, NON-SOIL) WILL BE RETURNED 6 WEEKS AFTER RECEIPT. N/T = NOT TESTED, N/A = NOT APPLICABLE, N/D = NOT DETECTED.

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LABORATORY REPORT

PAGE 1

H413 9307437 CA/CS/07* / /

CHAIN OF CUSTODY

HARDING LAWSON ASSOCIATES

ONE TOWER LANE

SUITE 1300

OAK BROOK TERRACE ,IL 60181

ATTN: MR. MARC SERNEL

SAMPLE

93295-H11089 93-29-L10-10-21-1/SOIL/SAUER-SUNDSTRAND/20603,24.2

DATE COLLECTED 10/21/93

DATE RECEIVED 10/22/93

PRESERVED: YES

TEMPERATURE: ON ICE

CONT. INTEGRITY: MEETS STANDARD

SAMPLE INTEG: MEETS STANDARD

TEST NAME	RESULT	<u>UNITS</u>	<u>ANALYZED</u>	METHOD	LIMIT
TETRACHLOROETHYLENE 1,1,1-TRICHLOROETHANE	0.44 <0.050	PPM .		SW846 8021 SW846 8021	

PLEASE CONTACT CLIENT SERVICES WITH ANY QUESTIONS. WATER SAMPLES ARE DISPOSED OF 30 DAYS AFTER RECEIPT; SOIL SAMPLES WILL BE DISPOSED OF 6 WEEKS AFTER RECEIPT; WASTE SAMPLES (NON-WATER, NON-SOIL) WILL BE RETURNED 6 WEEKS AFTER RECEIPT. N/T = NOT TESTED, N/A = NOT APPLICABLE, N/D = NOT DETECTED.

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AIHA ACCREDITED



LABORATORY REPORT

PAGE 1

H413 9307437 CA/CS/07* / /

CHAIN OF CUSTODY

HARDING LAWSON ASSOCIATES

ONE TOWER LANE

SUITE 1300

OAK BROOK TERRACE ,IL 60181

ATTN: MR. MARC SERNEL .

SAMPLE

93295-H11090 93-40-L10-10-21-1/SOIL/SAUER-SUNDSTRAND/20603,24.2

DATE COLLECTED 10/21/93

DATE RECEIVED 10/22/93

PRESERVED: YES

TEMPERATURE: ON ICE

CONT. INTEGRITY: MEETS STANDARD

SAMPLE INTEG: MEETS STANDARD

LIMIT ANALYZED METHOD RESULT UNITS TEST NAME 10/22/93 SW846 8021 TÉTRACHLOROETHYLENE <0.050 PPM 10/22/93 SW846 8021 PPM 1,1,1-TRICHLOROETHANE <0.050

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\$ = ELEVATED DETECTION LIMIT DUE TO SAMPLE QUANTITY. AIHA ACCREDITED

+ = ELEVATED DETECTION LIMIT DUE TO EXTRAGINIVOLUME.

140 East Ryan Road, Oak Creek, WI 53154-4599 • 414-764-7005 • FAX 414-764-0486 • 1-800-422-2195 Client Services Direct Line 414-768-7460 • WI DNR Lab Certification #241283020



THE PEOPLE WE SERVE . . . CARE ABOUT THE ENVIRONMENT

140 E. RYAN ROAD · OAK CREEK · WI · 53154 · 414-764-7005 · FAX 414-764-0486 · 1-800-422-2195 · CLIENT SERVICES 414-768-7460

40 E. RYAN ROAD . OAR CREEK	- WI			U-1					414 /											OVII. 1
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PROJECT NAME/#: 2060.3 1	T · L-	STATE	-	rail			GE		PRESERVATION TYPE	(0) /.	4 F. 10	/	/	/	/	/ ·	/	1	1	1/1/2/
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(8) TURNAROUND TIME IN WORK	ING DAYS	3: * *	*	*				(9) RELII	VQUIS	HED BY	: DAY		TIME	1	ECEIVI	ED BY	:	DATE	TIME
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FAX NUMBER (515) 239 -6304		<u></u>)									- 	\dashv	/A	FM					AM_ FIV
CONTACT: Ma++how J. Field			ŀ	-l	Oas	,								A	1 PM					AM FM
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(10) DATA PACKAGE OPTIONS A (PLEASE CIRCLE IF REQUIRED SEE BACK FOR COMPLETE PACK) PACI	KAGE A	В		С	Ľ)	11	L 1)	IN C	ASE WF	HAV	E OUE	STION	FM S WHI	N SAM	PLES	ARRI	VE,	Pv
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Shipping via: Fodoral Funra.

ZROO E. 13th Street, Ames IA 50010



LABORATORY REPORT

PAGE 1

H413 9307502 W31 CA/CS/07* / /

CHAIN OF CUSTODY

HARDING LAWSON ASSOCIATES

ONE TOWER LANE SUITE 1300

OAK BROOK TERRACE ,IL 60181

ATTN: MR. MARC SERNEL

93299-H11087 93-34-L10-10-25-1/SOIL/SAUER-SUNDSTRAND/20603,24.2 SAMPLE

DATE COLLECTED 10/25/93

DATE RECEIVED 10/26/93

PRESERVED: YES

TEMPERATURE: ON ICE

CONT. INTEGRITY: MEETS STANDARD

SAMPLE INTEG: MEETS STANDARD

TEST NAME	RESULT	UNITS	<u>ANALYZED</u>	METHOD	LIMIT
TETRACHLOROETHYLENE 1,1,1-TRICHLOROETHANE	<0.050 <0.050	PPM PPM	10/26/93 10/26/93		

PLEASE CONTACT CLIENT SERVICES WITH ANY QUESTIONS. WATER SAMPLES ARE DISPOSED OF 30 DAYS AFTER RECEIPT; SOIL SAMPLES WILL BE DISPOSED OF 6 WEEKS AFTER RECEIPT; WASTE SAMPLES (NON-WATER, NON-SOIL) WILL BE RETURNED 6 WEEKS AFTER RECEIPT. N/T = NOT TESTED, N/A = NOT APPLICABLE, N/D = NOT DETECTED.

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CHAIN OF CUSTODY

HARDING LAWSON ASSOCIATES

ONE TOWER LANE

SUITE 1300

OAK BROOK TERRACE ,IL 60181

ATTN: MR. MARC SERNEL

SAMPLE

93299-H11088 93-22-L10-10-25-1/SOIL/SAUER-SUNDSTRAND/20603,24.2

DATE COLLECTED 10/25/93

DATE RECEIVED 10/26/93

PRESERVED: YES

TEMPERATURE: ON ICE

CONT. INTEGRITY: MEETS STANDARD

SAMPLE INTEG: MEETS STANDARD

TEST NAME	RESULT	<u>UNITS</u>	<u>ANALYZED</u>	<u>METHOD</u>	LIMIT
TETRACHLOROETHYLENE 1,1,1-TRICHLOROETHANE	<0.050 <0.050	PPM PPM		SW846 8021 SW846 8021	

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CHAIN OF CUSTODY

HARDING LAWSON ASSOCIATES

ONE TOWER LANE SUITE 1300

OAK BROOK TERRACE ,IL 60181

ATTN: MR. MARC SERNEL

93299-H11089 93-20-L10-10-25-1/SOIL/SAUER-SUNDSTRAND/20603,24.2

DATE COLLECTED 10/25/93 DATE RECEIVED 10/26/93

PRESERVED: YES

TEMPERATURE: ON ICE

CONT. INTEGRITY: MEETS STANDARD

SAMPLE INTEG: MEETS STANDARD

TEST NAME	RESULT	UNITS	•	ANALYZED	<u>METHOD</u>	LIMIT
TETRACHLOROETHYLENE 1,1,1-TRICHLOROETHANE	0.055 <0.050	PPM PPM	٠ ٢		SW846 8021 SW846 8021	

PLEASE CONTACT CLIENT SERVICES WITH ANY QUESTIONS. WATER SAMPLES WILL BE DISPOSED OF 6 WEEKS AFTER RECEIPT; WASTE	SAMPLES (NON-WATER, NON-SOIL) WILL BE RETORITED & MESSAGE
TECTED N/A NOT ADDITIONED N	/D = NOT DETECTED. # = FLEVATED DETECTION LIMIT DUE TO SAMPLE CONCENTRATION.



LABORATORY REPORT

PAGE 1

H413 9307502 W31 CA/CS/07* / /

CHAIN OF CUSTODY

HARDING LAWSON ASSOCIATES

ONE TOWER LANE

SUITE 1300

•

OAK BROOK TERRACE ,IL 60181 .

ATTN: MR. MARC SERNEL

93299-H11090 93-26-L10-10-25-1/SOIL/SAUER-SUNDSTRAND/20603,24.2

DATE COLLECTED 10/25/93

DATE RECEIVED 10/26/93

PRESERVED: YES

AIHA ACCREDITED

TEMPERATURE: ON ICE

CONT. INTEGRITY: MEETS STANDARD SAMPLE INTEG: MEETS STANDARD

TEST NAME	RESULT	UNITS		ANALYZED	METHOD	LIMIT
TETRACHLOROETHYLENE 1,1,1-TRICHLOROETHANE	<0.050 <0.050	PPM PPM	• • • • • • • • • • • • • • • • • • •		SW846 8021 SW846 8021	

PLEASE CONTACT CLIENT SERVICES WITH ANY QUESTIONS. WATER SAMPLES ARE DISPOSED OF 30 DAYS AFTER RECEIPT; SOIL SAMPLES WILL BE DISPOSED OF 6 WEEKS AFTER RECEIPT; WASTE SAMPLES (NON-WATER, NON-SOIL) WILL BE RETURNED 6 WEEKS AFTER RECEIPT. N/T = NOT TESTED, N/A = NOT APPLICABLE, N/D = NOT DETECTED.

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THE PEOPLE WE SERVE . . . CARE ABOUT THE ENVIRONMENT

140 E. RYAN ROAD · OAK CREEF	· wi ·	53154 • 4	14-7	764	-700	5 •	FA	X 414-7	764 – 04	86 •	1-80	0-42	2-2195	· CLI	ENT S	ERVIC	ES 414-76	58-7460
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CONTACT: Devin Hodge o		how Fisher		3-1-	ــلـــــ	<u> </u>	-	13	<u>, </u>	·			AM AM	RM .				AM Ft [*] AM
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LABORATORY REPORT

PAGE 1

H413 9307687 W15 CA/CS/07* / /

CHAIN OF CUSTODY

HARDING LAWSON ASSOCIATES

ONE TOWER LANE

SUITE 1300

OAK BROOK TERRACE

,IL 60181

ATTN: BILL RENNER

SAMPLE 93306-H11087 93-324111111-1-

93306-H11087 93-32(L11)11-1-2/SOIL/PROJECT # 20603,24.2

DATE COLLECTED 11/01/93

DATE RECEIVED 11/02/93

PRESERVED: YES

TEMPERATURE: ON ICE

CONT. INTEGRITY: MEETS STANDARD

SAMPLE INTEG: MEETS STANDARD

TEST NAME	RESULT	<u>UNITS</u>	ANALYZED	METHOD	LIMIT
TETRACHLOROETHYLENE 1,1,1-TRICHLOROETHANE	0.071 <0.050	PPM PPM	11/02/93 11/02/93	SW846 8021 SW846 8021	

PLEASE CONTACT CLIENT SERVICES WITH ANY QUESTIONS. WATER SAMPLES ARE DISPOSED OF 30 DAYS AFTER RECEIPT; SOIL SAMPLES WILL BE DISPOSED OF 6 WEEKS AFTER RECEIPT; WASTE SAMPLES (NON-WATER, NON-SOIL) WILL BE RETURNED 6 WEEKS AFTER RECEIPT. N/T = NOT TESTED, N/A = NOT APPLICABLE, N/D = NOT DETECTED.

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AIHA ACCREDITED

ELEVATED DETECTION LIMIT DUE TO EXTRACT VOLUME



LABORATORY REPORT

PAGE 1

H413 9307687 W15 CA/CS/07* / /

CHAIN OF CUSTODY

HARDING LAWSON ASSOCIATES

ONE TOWER LANE

SUITE 1300

OAK BROOK TERRACE

,IL 60181

ATTN: BILL RENNER

SAMPLE

93306-H11088 93-41-L11-11-1-2/SOIL/PROJECT # 20603,24.2

DATE COLLECTED 11/01/93

DATE RECEIVED 11/02/93

PRESERVED: YES

TEMPERATURE: ON ICE

CONT. INTEGRITY: MEETS STANDARD

SAMPLE INTEG: MEETS STANDARD

TEST NAME	RESULT	UNITS	ANALYZED	METHOD	LIMIT
TETRACHLOROETHYLENE 1,1,1-TRICHLOROETHANE	<0.050 <0.050	PPM .	11/02/93 11/02/93	SW846 8021 SW846 8021	

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LABORATORY REPORT

PAGE 1

H413 9307687 CA/CS/07* / /

CHAIN OF CUSTODY

HARDING LAWSON ASSOCIATES

ONE TOWER LANE

SUITE 1300

OAK BROOK TERRACE

,IL 60181

ATTN: BILL RENNER

SAMPLE 93306-H11089 93-42-L11-11-1-2/SOIL/PROJECT # 20603,24.2

DATE COLLECTED 11/01/93

DATE RECEIVED 11/02/93

PRESERVED: YES

TEMPERATURE: ON ICE

CONT. INTEGRITY: MEETS STANDARD

SAMPLE INTEG: MEETS STANDARD

TEST NAME	RESULT	UNITS	ANALYZED	METHOD	LIMIT
TETRACHLOROETHYLENE 1,1,1-TRICHLOROETHANE	0.086 <0.050	PPM .	11/02/93 11/02/93	SW846 8021 SW846 8021	

PLEASE CONTACT CLIENT SERVICES WITH ANY QUESTIONS. WATER SAMPLES ARE DISPOSED OF 30 DAYS AFTER RECEIPT; SOIL SAMPLES WILL BE DISPOSED OF 6 WEEKS AFTER RECEIPT; WASTE SAMPLES (NON-WATER, NON-SOIL) WILL BE RETURNED 6 WEEKS AFTER RECEIPT. N/T = NOT TESTED, N/A = NOT APPLICABLE, N/D = NOT DETECTED.

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APPROVAL



LABORATORY REPORT

PAGE 1

H413 9307687 W15 CA/CS/07* / /

CHAIN OF CUSTODY

HARDING LAWSON ASSOCIATES

ONE TOWER LANE

SUITE 1300

OAK BROOK TERRACE

,IL 60181

ATTN: BILL RENNER

SAMPLE 93306-H11090 93-45-L11-11-1-2/SOIL/PROJECT # 20603,24.2

DATE COLLECTED 11/01/93 PRESERVED: YES

DATE RECEIVED 11/02/93 TEMPERATURE: ON ICE

CONT. INTEGRITY: MEETS STANDARD

SAMPLE INTEG: MEETS STANDARD

TEST NAME	RESULT	UNITS		ANALYZED	METHOD	LIMIT
TETRACHLOROETHYLENE 1,1,1-TRICHLOROETHANE	<0.050 <0.050	PPM PPM	·		SW846 8021 SW846 8021	

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AIHA ACCREDITED

= ELEVATED DETECTION LIMIT DUE TO SAMPLE QUANTITY. + = ELEVATED DETECTION LIMIT DUE TO EXTRACT VOLUME.

R	ENVIRONMENTAL LABORATORIESINC.
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11-2-93 11-2-93

CHAIN OF CUSTODY NO.

THE PEOPLE WE SERVE . . . CARE ABOUT THE ENVIRONMENT

140 E. RYAN ROAD · OAK CREEK · WI · 53154 · 414-764-7005 · FAX 414-764-0486 · 1-800-422-2195 · CLIENT SERVICES 414-768-7460 CLIENT: Harding Lawson Associates (5) MATRIX ANALYSES REQUESTED (METHODS & DETECTION LIMITS) P.O.# LAB USE ONLY CONTAINERS (3) UST PROJECT NAME/#:20603, 24,2 PRESERVATION TYPE ACCT # STATE_ PROJECT MANAGER: Nee! Danie! WPDES J. DATE SAMPLER: Marcus E. Serrel **NPDES** QUOTE # SOIL WATER WATER WATER WATER OTHER RCRA 80,0 (2) SAMPLE IDENTIFICATION ·b DATE TIME REMARKS 1436 AM 24-110LK X 10817 140 TURNAROUND 1429 M 24- HOUK X \Diamond 1108 Icc. TUR NAROUND 1422 1 24- HOUR X 11089 100 FURNAROUND 24-HOUR TUKNAROUND M FΜ FI/ ΑM (8) TURNAROUND TIME IN WORKING DAYS: (9) RELINQUISHED BY: DATE TIME RECEIVED BY: DATE TIME 10 1800 * FOR EXPEDITED TURNAROUND TIME CALL CLIENT SERVICES TO CONFIRM AVAILABILITY AT 414-768-7460 EXPEDITED RESULTS TO BE TRANSMITTED VIA: (FAX) PHONE iC ζ^{AM} Π ŘΜ M FAX NUMBER: (515)239-6309 PHONE NUMBER: (515)237-6313 CONTACT: AM ΑM (10) DATA PACKAGE OPTIONS AVAILABLE FOR A FEE (PLEASE CIRCLE IF REQUIRED) PACKAGE A SEE BACK FOR COMPLETE PACKAGE DESCRIPTIONS IN CASE WE HAVE QUESTIONS WHEN SAMPLES ARRIVE, CBC ENVIRONMENTAL LABORATORIES SHOULD CALL: (11)(12) OTHER SPECIAL INSTRUCTIONS: YOURY COOLEY PHONE: (515)239-6313 SEND REPORTS TO:

Sont via Fed Fx

Ontbent France TI 61820



11/12/93

LABORATORY REPORT

PAGE 1

H413 9307963 CA/CS/07* / /

CHAIN OF CUSTODY

HARDING LAWSON ASSOCIATES

ONE TOWER LANE

SUITE 1300

OAK BROOK TERRACE ,IL 60181

ATTN: MR. MARC SERNEL

LIFT PL

93315-H11087 93-32-L12-11-10-2/SOIL/PROJECT# 20603,24.2 SAMPLE

DATE COLLECTED 11/10/93

DATE RECEIVED 11/11/93

PRESERVED: YES

TEMPERATURE: ON ICE

CONT. INTEGRITY: MEETS STANDARD

SAMPLE INTEG: MEETS STANDARD

TEST NAME RESULT UNITS ANALYZED METHOD LIMIT

TETRACHLOROETHYLENE 0.080 PPM 11/12/93 SW846 8010

THIS IS AN AMENDED RESULT DUE TO A CALCULATION

ERROR, 11-12-93.

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PLEASE CONTACT CLIENT SERVICES WITH ANY QUESTIONS. WATER SAMPLES ARE DISPOSED OF 30 DAYS AFTER RECEIPT; SOIL SAMPLES WILL BE DISPOSED OF 6 WEEKS AFTER RECEIPT; WASTE SAMPLES (NON-WATER, NON-SOIL) WILL BE RETURNED 6 WEEKS AFTER RECEIPT. N/T = NOT TESTED, N/A = NOT APPLICABLE, N/D = NOT DETECTED.

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+ = ELEVATED DETECTION LIMIT DUE TO EXTRACT VOLUME. \$ = ELEVATED DETECTION LIMIT DUE TO SAMPLE QUANTITY. APPROVAL WH AIHA ACCREDITED



11/12/93

LABORATORY REPORT

PAGE 1

H413 9307963 CA/CS/07* / /

CHAIN OF CUSTODY

HARDING LAWSON ASSOCIATES

ONE TOWER LANE

SUITE 1300

OAK BROOK TERRACE ,IL 60181

ATTN: MR. MARC SERNEL

93315-H11088 93-27-L12-11-10-2/SOIL/PROJECT# 20603,24.2

DATE COLLECTED 11/10/93

DATE RECEIVED 11/11/93

PRESERVED: YES

TEMPERATURE: ON ICE

CONT. INTEGRITY: MEETS STANDARD

SAMPLE INTEG: MEETS STANDARD

TEST NAME	RESULT	<u>UNITS</u>	ANALYZED METHOD	LIMIT
TETRACHLOROETHYLENE 1,1,1-TRICHLOROETHANE	<0.050 <0.050	PPM PPM	11/12/93 SW846 8010 11/12/93 SW846 8010	

PLEASE CONTACT CLIENT SERVICES WITH ANY QUESTIONS. WATER SAMPLES ARE DISPOSED OF 30 DAYS AFTER RECEIPT; SOIL SAMPLES WILL BE DISPOSED OF 6 WEEKS AFTER RECEIPT; WASTE SAMPLES (NON-WATER, NON-SOIL) WILL BE RETURNED 6 WEEKS AFTER RECEIPT. N/T = NOT TESTED, N/A = NOT APPLICABLE, N/D = NOT DETECTED.

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11/12/93

LABORATORY REPORT

PAGE 1

H413 9307963 CA/CS/07* / /

CHAIN OF CUSTODY

HARDING LAWSON ASSOCIATES

ONE TOWER LANE

SUITE 1300

OAK BROOK TERRACE ,IL 60181

ATTN: MR. MARC SERNEL

SAMPLE

93315-H11089 93-26-L12-11-10-2/SOIL/PROJECT# 20603,24.2

DATE COLLECTED 11/10/93

DATE RECEIVED 11/11/93

PRESERVED: YES

TEMPERATURE: ON ICE

CONT. INTEGRITY: MEETS STANDARD

SAMPLE INTEG: MEETS STANDARD

TEST NAME	RESULT	UNITS	ANALYZED	METHOD	LIMIT
TETRACHLOROETHYLENE 1,1,1-TRICHLOROETHANE	<0.050 <0.050	PPM .		SW846 8010 SW846 8010	

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\$ = ELEVATED DETECTION LIMIT DUE TO SAMPLE QUANTITY. + = ELEVATED DETECTION LIMIT DUE TO EXTRACT VOLUME.

APPROVAL WW

AIHA ACCREDITED



LABORATORY REPORT

PAGE 1

H413 9307963 CA/CS/07* / /

CHAIN OF CUSTODY

HARDING LAWSON ASSOCIATES

ONE TOWER LANE

SUITE 1300

OAK BROOK TERRACE ,IL 60181

ATTN: MR. MARC SERNEL

.93315-H11090 93-6-L12-11-10-2/SOIL/PROJECT# 20603,24.2

DATE COLLECTED 11/10/93

DATE RECEIVED 1.1/11/93

PRESERVED: YES

TEMPERATURE: ON ICE

CONT. INTEGRITY: MEETS STANDARD

SAMPLE INTEG: MEETS STANDARD

TEST NAME	RESULT	<u>UNITS</u>		ANALYZED	METHOD	LIMIT
TETRACHLOROETHYLENE 1,1,1-TRICHLOROETHANE	<0.050 <0.050	PPM PPM	<i>'</i> .		SW846 8010 SW846 8010	

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AIHA ACCREDITED

APPROVAL WW

THE PEOPLE WE SERVE CARE ABOUT THE ENVIRONMENT 140 E. RYAN ROAD · OAK CREEK · WI · 53154 · 414-764-7005 · FAX. 414-764-0486 · 1-800-422-2195 · CLIENT SERVICES 414-768-7460 (1) CLIENT: Hadding (5) MATRIX ANALYSES REQUESTED (METHODS & DETECTION LIMITS) P.O.# Lawson Househ CONTAINERS LAB USE ONLY (3) UST PROJECT NAME/#: 20603 24,7 (6) PRESERVATION STATE PROJECT MANAGER: No. 1 Dan. 1 ACCT # | | | 1 WPDES 4 direction SAMPLER: Marcus **NPDES** J. DATE (' ', ' # OF C SOIL WATER WASTE WWTP S RCRA QUOTE #121761 GRAB % % 10/0/ 10/ (2) SAMPLE IDENTIFICATION DATE TIME (7)REMARKS 32-412-11/10-21 IVIS/93 OXUD CAM 160 27-6-12-11/10-2 11/10/93 1845 AM 26-612-11/10-2 11/10/193/7850 1 (0 6-412-11/10-2 11/10/93 1350 100 AM -11/10/13/1800 ÆΜ X 11 P 93-29-1-12-11/10-2 11/10/93 1410 AM: 1-101 N X - 19-L12-11/12-2/11/10/93 H131-1 AM (8) TURNAROUND_TIME IN WORKING DAYS: (9) RELINQUISHED BY: DATE TIME RECEIVED BY: NORMAL DATE TIME 10 * FOR EXPEDITED TURNAROUND TIME CALL CLIENT SERVICES TO CONFIRM AVAILABILITY AT 414-768-7460 EXPEDITED RESULTS TO BE TRANSMITTED VIA: FAX PHONE 11/10/91/1700 Yacz N.C. I PM HAS NOCON PM $y_{i,j(t,s)}$ FAX NUMBER: (515) 229-1304 PHONE NUMBER: (515) ÀΜ AM AM HM' CONTACT: AM_{FI} AM (10) DATA PACKAGE OPTIONS AVAILABLE FOR A FEE (PLEASE CIRCLE IF REQUIRED) PACKAGE A SEE BACK FOR COMPLETE PACKAGE DESCRIPTIONS AM FM \mathbf{F}^{M} AM D ΛM IN CASE WE HAVE QUESTIONS WHEN SAMPLES ARRIVE, CBC ENVIRONMENTAL LABORATORIES SHOULD CALL: (11)(12) OTHER SPECIAL INSTRUCTIONS: YELLY

+- OR KINGOK TO (COL. Addition) NAME: PHONE: (515) 239-6313 SEND REPORTS TO: Shipped Via Federal Expersi OFFICER TOTAL TIL LOUIS



LABORATORY REPORT

PAGE 1

H413 9308268 CA/CS/07* / /

CHAIN OF CUSTODY

HARDING LAWSON ASSOCIATES

ONE TOWER LANE

SUITE 1300

OAK BROOK TERRACE ,IL 60181

ATTN: MR. MARC SERNEL

SAMPLE

LIFT 13 93327-H11087 93-33 (L13)-11-20-1/SOIL/SUNDSTRAND/AMES

DATE COLLECTED 11/20/93

DATE RECEIVED - 11/23/93

PRESERVED: YES

TEMPERATURE: ON ICE

CONT. INTEGRITY: MEETS STANDARD

SAMPLE INTEG: MEETS STANDARD

TEST NAME	RESULT	<u>UNITS</u>	ANALYZED	METHOD	LIMIT
TETRACHLOROETHYLENE 1,1,1-TRICHLOROETHANE	<0.050 <0.050	PPM PPM	11/23/93 11/23/93	SW846 8010 SW846 8010	

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AIHA ACCREDITED

APPROVAL



LABORATORY REPORT

PAGE 1

H413 9308268 CA/CS/07* / /

CHAIN OF CUSTODY

HARDING LAWSON ASSOCIATES

ONE TOWER LANE

SUITE 1300

OAK BROOK TERRACE ,IL 60181

ATTN: MR. MARC SERNEL

SAMPLE

93327-H11088 93-21-L13-11-20-1/SOIL/SUNDSTRAND/AMES

DATE COLLECTED 11/20/93

DATE RECEIVED 11/23/93

PRESERVED: YES

TEMPERATURE: ON ICE

CONT. INTEGRITY: MEETS STANDARD

SAMPLE INTEG: MEETS STANDARD

TEST NAME	RESULT	UNITS	<u>ANALYZED</u>	METHOD	LIMIT
TETRACHLOROETHYLENE 1,1,1-TRICHLOROETHANE	<0.050 <0.050	PPM PPM		SW846 8010 SW846 8010	

PLEASE CONTACT CLIENT SERVICES WITH ANY QUESTIONS. <u>WATER SAMPLES ARE DISPOSED OF 30 DAYS AFTER RECEIPT; SOIL</u> SAMPLES WILL BE DISPOSED OF 6 WEEKS AFTER RECEIPT; WASTE SAMPLES (NON-WATER, NON-SOIL) WILL BE RETURNED 6 WEEKS AFTER RECEIPT. N/T = NOT TESTED, N/A = NOT APPLICABLE, N/D = NOT DETECTED.

@ = ELEVATED DETECTION LIMIT DUE TO MATRIX INTERFERENCE. # = ELEVATED DETECTION LIMIT DUE TO SAMPLE CONCENTRATION. \$ = ELEVATED DETECTION LIMIT DUE TO SAMPLE QUANTITY. + = ELEVATED DETECTION LIMIT DUE TO EXTRACT VOLUME.

AIHA ACCREDITED

APPROVAL _



LABORATORY REPORT

PAGE 1

H413 9308268 CA/CS/07* / /

CHAIN OF CUSTODY

HARDING LAWSON ASSOCIATES

ONE TOWER LANE

SUITE 1300

OAK BROOK TERRACE ,IL 60181

ATTN: MR. MARC SERNEL

SAMPLE

93327-H11089 93-18-L13-11-20-1/SOIL/SUNDSTRAND/AMES

DATE COLLECTED 11/20/93

DATE RECEIVED 11/23/93

PRESERVED: YES

TEMPERATURE: ON ICE

CONT. INTEGRITY: MEETS STANDARD

SAMPLE INTEG: MEETS STANDARD

TEST NAME	RESULT	<u>UNITS</u>	ANALYZED	METHOD	LIMIT
TETRACHLOROETHYLENE 1,1,1-TRICHLOROETHANE	0.22 <0.050	PPM PPM		SW846 8010 SW846 8010	

PLEASE CONTACT CLIENT SERVICES WITH ANY QUESTIONS. WATER SAMPLES ARE DISPOSED OF 30 DAYS AFTER RECEIPT; SOIL SAMPLES WILL BE DISPOSED OF 6 WEEKS AFTER RECEIPT; WASTE SAMPLES (NON-WATER, NON-SOIL) WILL BE RETURNED 6 WEEKS AFTER RECEIPT. N/T = NOT TESTED, N/A = NOT APPLICABLE, N/D = NOT DETECTED.

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LABORATORY REPORT

PAGE 1

H413 9308268 CA/CS/07* / /

CHAIN OF CUSTODY

HARDING LAWSON ASSOCIATES

ONE TOWER LANE

SUITE 1300

OAK BROOK TERRACE ,IL 60181

ATTN: MR. MARC SERNEL

93327-H11090 93-11-L13-11-20-1/SOIL/SUNDSTRAND/AMES

DATE COLLECTED 11/20/93

DATE RECEIVED 11/23/93

PRESERVED: YES

TEMPERATURE: ON ICE

CONT. INTEGRITY: MEETS STANDARD

SAMPLE INTEG: MEETS STANDARD

TEST NAME	RESULT	UNITS	ANALYZED	METHOD	LIMIT
TETRACHLOROETHYLENE 1,1,1-TRICHLOROETHANE	<0.050 <0.050	PPM PPM	11/23/93 11/23/93	SW846 8010 SW846 8010	

PLEASE CONTACT CLIENT SERVICES WITH ANY QUESTIONS. WATER SAMPLES ARE DISPOSED OF 30 DAYS AFTER RECEIPT; SOIL SAMPLES WILL BE DISPOSED OF 6 WEEKS AFTER RECEIPT; WASTE SAMPLES (NON-WATER, NON-SOIL) WILL BE RETURNED 6 WEEKS AFTER RECEIPT. N/T = NOT TESTED, N/A = NOT APPLICABLE, N/D = NOT DETECTED.

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\$ = ELEVATED DETECTION LIMIT DUE TO SAMPLE QUANTITY. + = ELEVATED DETECTION LIMIT DUE TO EXTRACT VOLUME. AIHA ACCREDITED

APPROVAL

THE PEOPLE WE SERVE . . . CARE ABOUT THE ENVIRONMENT

140 E. RYAN ROAD · OAK CREEK · WI · 53154 · 414-76	64-7005 •	: FAX 414-7	64-0486	1-800-42	2-2105	Of TERM One	
		RIX ANALYS	ES REQUEST	ED (METHO	DS & DETU	ECTION LIMIT	
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FAX NUMBER: 515-237-6354 PHONE NUMBER: (15-23)	7-1312	1	· · · · · · · · · · · · · · · · · · ·	'	AM EM	•	, v
CONTACT: ASTUK RUPOTTI	1 621)			1/1/	AM FM		M M
(10) DATA PACKAGE OPTIONS AVAILABLE FOR A FEE (PLEASE CIRCLE IF REQUIRED) PACKAGE A SEE BACK FOR COMPLETE PACKAGE DESCRIPTIONS		•	·····	-	- PM		· MM
DESCRIPTIONS	CD	(11) I	N CASE WE	HAVE OVE	AM FM		M1
	Yer		CBC ENVIRO	NMENTAL]	LABORATOI	HEN SAMPLES	ARRIVE, CALL:
132/ (allet to 18) 10 - (20) 1/23/98		NAME: // S	HOK KU	Pani		PHONE:	. ~ .
	<u> </u>	SEND REPOR	IS TO:				
1424/92	12						

APPENDIX D

CONFIRMATORY SOIL SAMPLE ANALYTICAL RESULTS



LABORATORY REPORT

PAGE 1

H413 9309308 CA/CS/07* / /

CHAIN OF CUSTODY

HARDING LAWSON ASSOCIATES ONE TOWER LANE **SUITE 1300** OAK BROOK TERRACE ,IL 60181

ATTN: MR. MARC SERNEL

SAMPLE

93362-H11092 44/24-32/SOIL/PROJECT# 20603,20.2

DATE COLLECTED 12/22/93

DATE RECEIVED 12/28/93

PRESERVED: YES

TEMPERATURE: ON ICE

CONT. INTEGRITY: MEETS STANDARD

SAMPLE INTEG: MEETS STANDARD

TEST NAME	RESULT	UNITS	 ANALYZED	<u>METHOD</u>	LIMIT
TETRACHLOROETHYLENE 1,1,1-TRICHLOROETHANE	0.094 <0.050	PPM PPM	01/03/94 01/03/94	SW846 8021 SW846 8021	,

PLEASE CONTACT CLIENT SERVICES WITH ANY QUESTIONS. WATER SAMPLES ARE DISPOSED OF 30 DAYS AFTER RECEIPT; SOIL SAMPLES WILL BE DISPOSED OF 6 WEEKS AFTER RECEIPT; WASTE SAMPLES (NON-WATER, NON-SOIL) WILL BE RETURNED 6 WEEKS AFTER RECEIPT. N/T = NOT TESTED, N/A = NOT APPLICABLE, N/D = NOT DETECTED.

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\$ = ELEVATED DETECTION LIMIT DUE TO SAMPLE QUANTITY. + = ELEVATED DETECTION LIMIT DUE TO EXTRACT VOLUME. APPROVAL ____JWW)



LABORATORY REPORT

PAGE 1

H413 9309308 CA/CS/07* / /

CHAIN OF CUSTODY

HARDING LAWSON ASSOCIATES

ONE TOWER LANE SUITE 1300 OAK BROOK TERRACE ,IL 60181

ATTN: MR. MARC SERNEL

93362-H11088 44/16-24/SOIL/PROJECT# 20603,20.2 SAMPLE

DATE COLLECTED 12/22/93

DATE RECEIVED 12/28/93

PRESERVED: YES

TEMPERATURE: ON ICE

CONT. INTEGRITY: MEETS STANDARD

SAMPLE INTEG: MEETS STANDARD

TEST NAME	RESULT	<u>UNITS</u>	ANALYZED	METHOD	LIMIT
TETRACHLOROETHYLENE 1,1,1-TRICHLOROETHANE	<0.050 <0.050	PPM PPM	-	SW846 8021 SW846 8021	

PLEASE CONTACT CLIENT SERVICES WITH ANY QUESTIONS. WATER SAMPLES ARE DISPOSED OF 30 DAYS AFTER RECEIPT; SOIL SAMPLES WILL BE DISPOSED OF 6 WEEKS AFTER RECEIPT; WASTE SAMPLES (NON-WATER, NON-SOIL) WILL BE RETURNED 6 WEEKS AFTER RECEIPT. N/T = NOT TESTED, N/A = NOT APPLICABLE, N/D = NOT DETECTED.

P = ELEVATED DETECTION LIMIT DUE TO MATRIX INTERFERENCE. # = ELEVATED DETECTION LIMIT DUE TO SAMPLE CONCENTRATION. = ELEVATED DETECTION LIMIT DUE TO SAMPLE QUANTITY. + = ELEVATED DETECTION LIMIT DUE TO EXTRACT VOLUME. AIHA ACCREDITED APPROVAL ______ ML)



LABORATORY REPORT

PAGE 1

H413 9309308 CA/CS/07* / /

CHAIN OF CUSTODY

HARDING LAWSON ASSOCIATES

ONE TOWER LANE

SUITE 1300

OAK BROOK TERRACE ,IL 60181

ATTN: MR. MARC SERNEL

93362-H11089 45/16-24/SOIL/PROJECT# 20603,20.2 SAMPLE

DATE COLLECTED 12/22/93

DATE RECEIVED 12/28/93

PRESERVED: YES

TEMPERATURE: ON ICE

CONT. INTEGRITY: MEETS STANDARD

SAMPLE INTEG: MEETS STANDARD

TEST NAME	RESULT	UNITS	ANALYZED	METHOD	LIMIT
TETRACHLOROETHYLENE 1,1,1-TRICHLOROETHANE	<0.050 <0.050	PPM PPM		SW846 8021 SW846 8021	

PLEASE CONTACT CLIENT SERVICES WITH ANY QUESTIONS. WATER SAMPLES ARE DISPOSED OF 30 DAYS AFTER RECEIPT; SOIL SAMPLES WILL BE DISPOSED OF 6 WEEKS AFTER RECEIPT; WASTE SAMPLES (NON-WATER, NON-SOIL) WILL BE RETURNED 6 WEEKS AFTER RECEIPT. N/T = NOT TESTED, N/A = NOT APPLICABLE, N/D = NOT DETECTED. © = ELEVATED DETECTION LIMIT DUE TO MATRIX INTERFERENCE. # = ELEVATED DETECTION LIMIT DUE TO SAMPLE CONCENTRATION.

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LABORATORY REPORT

PAGE 1

H413 9309308 CA/CS/07* / /

CHAIN OF CUSTODY

HARDING LAWSON ASSOCIATES

ONE TOWER LANE

SUITE 1300

OAK BROOK TERRACE ,IL 60181

ATTN: MR. MARC SERNEL

SAMPLE

93362-H11090 46/16-24/SOIL/PROJECT# 20603,20.2

DATE COLLECTED 12/22/93

DATE RECEIVED 12/28/93

PRESERVED: YES

TEMPERATURE: ON ICE

CONT. INTEGRITY: MEETS STANDARD

SAMPLE INTEG: MEETS STANDARD

TEST NAME	RESULT	UNITS	ANALYZED	METHOD	LIMIT
TETRACHLOROETHYLENE 1,1,1-TRICHLOROETHANE	<0.050 <0.050	PPM PPM		SW846 8021 SW846 8021	

PLEASE CONTACT CLIENT SERVICES WITH ANY QUESTIONS. WATER SAMPLES ARE DISPOSED OF 30 DAYS AFTER RECEIPT; SOIL SAMPLES WILL BE DISPOSED OF 6 WEEKS AFTER RECEIPT; WASTE SAMPLES (NON-WATER, NON-SOIL) WILL BE RETURNED 6 WEEKS AFTER RECEIPT. N/T = NOT TESTED, N/A = NOT APPLICABLE, N/D = NOT DETECTED.

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APPROVAL _



LABORATORY REPORT

PAGE 1

H413 9309308 W31 CA/CS/07* / /

CHAIN OF CUSTODY

HARDING LAWSON ASSOCIATES
ONE TOWER LANE SUITE 1300
OAK BROOK TERRACE ,IL 60181

ATTN: MR. MARC SERNEL

SAMPLE

93362-H11091 3/16-24/SOIL/PROJECT# 20603,20.2

DATE COLLECTED 12/22/93

DATE RECEIVED 12/28/93

PRESERVED: YES

TEMPERATURE: ON ICE

CONT. INTEGRITY: MEETS STANDARD

SAMPLE INTEG: MEETS STANDARD

TEST NAME	RESULT	<u>UNITS</u>		ANALYZED	METHOD	LIMIT
TETRACHLOROE 1,1,1-TRICHL	<0.050 <0.050	PPM PPM	, a		SW846 8021 SW846 8021	

PLEASE CONTACT CLIENT SERVICES WITH ANY QUESTIONS. WATER SAMPLES ARE DISPOSED OF 30 DAYS AFTER RECEIPT; SOIL SAMPLES WILL BE DISPOSED OF 6 WEEKS AFTER RECEIPT; WASTE SAMPLES (NON-WATER, NON-SOIL) WILL BE RETURNED 6 WEEKS AFTER RECEIPT. N/T = NOT TESTED, N/A = NOT APPLICABLE, N/D = NOT DETECTED.

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LABORATORY REPORT

PAGE 1

H413 9309308 CA/CS/07* / /

CHAIN OF CUSTODY

HARDING LAWSON ASSOCIATES

ONE TOWER LANE

SUITE 1300

OAK BROOK TERRACE

,IL 60181

ATTN: MR. MARC SERNEL

SAMPLE

93362-H11093 45/24-32/SOIL/PROJECT# 20603,20.2

DATE COLLECTED 12/22/93

DATE RECEIVED 12/28/93

PRESERVED: YES

TEMPERATURE: ON ICE

CONT. INTEGRITY: CRACKED CONTAINER

SAMPLE INTEG: MEETS STANDARD

TEST NAME	RESULT	UNITS	ANALYZED METHOD LIMI	Ţ
TETRACHLOROETHYLENE 1,1,1-TRICHLOROETHANE	<0.050 <0.050	PPM PPM	01/03/94 SW846 8021 01/03/94 SW846 8021	

PLEASE CONTACT CLIENT SERVICES WITH ANY QUESTIONS. WATER SAMPLES ARE DISPOSED OF 30 DAYS AFTER RECEIPT; SOIL SAMPLES WILL BE DISPOSED OF 6 WEEKS AFTER RECEIPT; WASTE SAMPLES (NON-WATER, NON-SOIL) WILL BE RETURNED 6 WEEKS AFTER RECEIPT. N/T = NOT TESTED, N/A = NOT APPLICABLE, N/D = NOT DETECTED.

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LABORATORY REPORT

PAGE 1

H413 9309308 CA/CS/07* / /

CHAIN OF CUSTODY

HARDING LAWSON ASSOCIATES

ONE TOWER LANE

SUITE 1300

OAK BROOK TERRACE ,IL 60181

ATTN: MR. MARC SERNEL

SAMPLE

93362-H11094 46/24-32/SOIL/PROJECT# 20603,20.2

DATE COLLECTED 12/22/93

DATE RECEIVED 12/28/93

PRESERVED: YES

TEMPERATURE: ON ICE

CONT. INTEGRITY: MEETS STANDARD

SAMPLE INTEG: MEETS STANDARD

TEST NAME	RESULT	UNITS	ANALYZED	METHOD	LIMIT
TETRACHLOROETHYLENE 1,1,1-TRICHLOROETHANE	<0.050 <0.050	PPM .		SW846 8021 SW846 8021	

PLEASE CONTACT CLIENT SERVICES WITH ANY QUESTIONS. WATER SAMPLES ARE DISPOSED OF 30 DAYS AFTER RECEIPT; SOIL SAMPLES WILL BE DISPOSED OF 6 WEEKS AFTER RECEIPT; WASTE SAMPLES (NON-WATER, NON-SOIL) WILL BE RETURNED 6 WEEKS AFTER RECEIPT. N/T = NOT TESTED, N/A = NOT APPLICABLE, N/D = NOT DETECTED.

= ELEVATED DETECTION LIMIT DUE TO SAMPLE QUANTITY. + = ELEVATED DETECTION LIMIT DUE TO EXTRACT VOLUME. AIHA ACCREDITED

APPROVAL ___



LABORATORY REPORT

PAGE 1

H413 9309308 CA/CS/07* / /

CHAIN OF CUSTODY

HARDING LAWSON ASSOCIATES

ONE TOWER LANE

SUITE 1300

OAK BROOK TERRACE ,IL 60181

ATTN: MR. MARC SERNEL

SAMPLE 93362-H11095 3/24-32/SOIL/PROJECT# 20603,20.2

DATE COLLECTED 12/22/93

DATE RECEIVED 12/28/93

PRESERVED: YES -

TEMPERATURE: ON ICE

CONT. INTEGRITY: MEETS STANDARD

SAMPLE INTEG: MEETS STANDARD

TEST NAME	RESULT	UNITS	ANALYZED	METHOD	LIMIT
TETRACHLOROETHYLENE 1,1,1-TRICHLOROETHANE	<0.050 <0.050	PPM PPM	01/03/94 01/03/94	SW846 8021 SW846 8021	

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= ELEVATED DETECTION LIMIT DUE TO SAMPLE QUANTITY. + = ELEVATED DETECTION LIMIT DUE TO EXTRACT VOLUME. AIHA ACCREDITED

APPROVAL _



01/05/94

LABORATORY REPORT

PAGE 1

H413 9309398 W15 CS/07/* //

CHAIN OF CUSTODY

HARDING LAWSON ASSOCIATES

ONE TOWER LANE

SUITE 1300

OAK BROOK TERRACE

,IL 60181

ATTN: MARC SERNEL

SAMPLE

94004-H11087 44(8-16)/SUNDSTRAND/PROJECT # 20603,20.2/SOIL

DATE COLLECTED 12/22/93

DATE RECEIVED 01/04/94

PRESERVED: YES

TEMPERATURE: ON ICE

CONT. INTEGRITY: MEETS STANDARD

SAMPLE INTEG: MEETS STANDARD

TEST NAME	RESULT	UNITS	•	ANALYZED	METHOD	LIMIT
TETRACHLOROETHYLENE 1,1,1-TRICHLOROETHANE	<0.050 <0.050	PPM PPM		01/05/94 01/05/94	SW846 8021 SW846 8021	

PLEASE CONTACT CLIENT SERVICES WITH ANY QUESTIONS. <u>WATER SAMPLES ARE DISPOSED OF 30 DAYS AFTER RECEIPT; SOIL SAMPLES WILL BE DISPOSED OF 6 WEEKS AFTER RECEIPT; WASTE SAMPLES (NON-WATER, NON-SOIL) WILL BE RETURNED 6 WEEKS AFTER RECEIPT.</u> N/T = NOT TESTED, N/A = NOT APPLICABLE, N/D = NOT DETECTED.

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AIHA ACCREDITED

+ = ELEVATED DETECTION LIMIT DUE TO EXTRACT VOLUME.

APPROVAL JW11)



LABORATORY REPORT

PAGE 1

H413 9309398 CS/07/* //

CHAIN OF CUSTODY

HARDING LAWSON ASSOCIATES

ONE TOWER LANE

SUITE 1300 ,IL 60181

OAK BROOK TERRACE

ATTN: MARC SERNEL

SAMPLE

94004-H11088 46(8-16)/SUNDSTRAND/PROJECT # 20603,20.2/SOIL

DATE COLLECTED 12/22/93

DATE RECEIVED 01/04/94

PRESERVED: YES

TEMPERATURE: ON ICE

CONT. INTEGRITY: MEETS STANDARD

SAMPLE INTEG: MEETS STANDARD

TEST NAME	RESULT	<u>UNITS</u>	•	ANALYZED	METHOD	LIMIT
TETRACHLOROETHYLENE 1,1,1-TRICHLOROETHANE	<0.050 <0.050	PPM PPM	. ,		SW846 8021 SW846 8021	

PLEASE CONTACT CLIENT SERVICES WITH ANY QUESTIONS. WATER SAMPLES ARE DISPOSED OF 30 DAYS AFTER RECEIPT; SOIL SAMPLES WILL BE DISPOSED OF 6 WEEKS AFTER RECEIPT; WASTE SAMPLES (NON-WATER, NON-SOIL) WILL BE RETURNED 6 WEEKS AFTER RECEIPT. N/T = NOT TESTED, N/A = NOT APPLICABLE, N/D = NOT DETECTED.

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AIHA ACCREDITED

APPROVAL ____



LABORATORY REPORT

PAGE 1

H413 9309398 CS/07/* //

CHAIN OF CUSTODY

HARDING LAWSON ASSOCIATES

ONE TOWER LANE

SUITE 1300 ,IL 60181

OAK BROOK TERRACE

ATTN: MARC SERNEL

SAMPLE 94004-H11089 3(8-16)/SUNDSTRAND/PROJECT # 20603,20.2/SOIL

DATE COLLECTED 12/22/93

DATE RECEIVED 01/04/94

PRESERVED: YES

TEMPERATURE: ON ICE

CONT. INTEGRITY: MEETS STANDARD

SAMPLE INTEG: MEETS STANDARD

TEST NAME	RESULT	UNITS	ANALYZED	METHOD	LIMIT
TETRACHLOROETHYLENE 1,1,1-TRICHLOROETHANE	<0.050 <0.050	PPM PPM	01/05/94 01/05/94	SW846 8021 SW846 8021	

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LABORATORY REPORT

PAGE 1

H413 9309398 W15 CS/07/* //

CHAIN OF CUSTODY

HARDING LAWSON ASSOCIATES

ONE TOWER LANE

SUITE 1300

OAK BROOK TERRACE ,IL 60181

ATTN: MARC SERNEL

SAMPLE 94004-H11090 43(8-16)/SUNDSTRAND/PROJECT # 20603,20.2/SOIL
DATE COLLECTED 12/22/93 DATE RECEIVED 03/04/04

PRESERVED: YES

DATE RECEIVED 01/04/94 TEMPERATURE: ON ICE

CONT. INTEGRITY: MEETS STANDARD

SAMPLE INTEG: MEETS STANDARD

TEST NAME	RESULT	UNITS	<u>ANALYZED</u>	METHOD	LIMIT
TETRACHLOROETHYLENE 1,1,1-TRICHLOROETHANE	<0.050 <0.050	DOM:		SW846 8021 SW846 8021	

PLEASE CONTACT CLIENT SERVICES WITH ANY QUESTIONS. WATER SAMPLES ARE DISPOSED OF 30 DAYS AFTER RECEIPT; SOIL

SAMPLES WILL BE DISPOSED OF 6 WEEKS AFTER RECEIPT; WASTE SAMPLES (NON-WATER, NON-SOIL) WILL BE RETURNED 6 WEEKS

AFTER RECEIPT. N/T = NOT TESTED, N/A = NOT APPLICABLE, N/D = NOT DETECTED.



LABORATORY REPORT

PAGE 1

H413 9309398 W15 CS/07/* //

CHAIN OF CUSTODY

HARDING LAWSON ASSOCIATES
ONE TOWER LANE SUITE 1300
OAK BROOK TERRACE ,IL 60181

ATTN: MARC SERNEL

SAMPLE

94004-H11091 46(0-8)/SUNDSTRAND/PROJECT # 20603,20.2/SOIL

DATE COLLECTED 12/22/93

DATE RECEIVED 01/04/94

PRESERVED: YES

TEMPERATURE: ON ICE

CONT. INTEGRITY: MEETS STANDARD

SAMPLE INTEG: MEETS STANDARD

TEST NAME	RESULT	UNITS	Δ	NALYZED	METHOD	LIMIT
TETRACHLOROETHYLENE 1,1,1-TRICHLOROETHANE	<0.050 <0.050	PPM PPM	•	1/05/94 1/05/94	SW846 8021 SW846 8021	,

PLEASE CONTACT CLIENT SERVICES WITH ANY QUESTIONS. WATER SAMPLES ARE DISPOSED OF 30 DAYS AFTER RECEIPT; SOIL

SAMPLES WILL BE DISPOSED OF 6 WEEKS AFTER RECEIPT; WASTE SAMPLES (NON-WATER, NON-SOIL) WILL BE RETURNED 6 WEEKS

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\$ = ELEVATED DETECTION LIMIT DUE TO SAMPLE QUANTITY. + = ELEVATED DETECTION LIMIT DUE TO EXTRACT VOLUME.

APPROVAL J'MU.



LABORATORY REPORT

PAGE 1

H413 9309398 CS/07/* //

CHAIN OF CUSTODY

HARDING LAWSON ASSOCIATES

ONE TOWER LANE

SUITE 1300 ,IL 60181

OAK BROOK TERRACE

ATTN: MARC SERNEL

94004-H11092 3(0-8)/SUNDSTRAND/PROJECT # 20603,20.2/SOIL

DATE COLLECTED 12/22/93

DATE RECEIVED 01/04/94

PRESERVED: YES

TEMPERATURE: ON ICE

CONT. INTEGRITY: MEETS STANDARD

SAMPLE INTEG: MEETS STANDARD

TEST NAME	RESULT	<u>UNITS</u>	ANALYZED METHOD LIMIT
TETRACHLOROETHYLENE 1,1,1-TRICHLOROETHANE	<0.050	PPM	. 01/05/94 SW846 8021
	<0.050	PPM	01/05/94 SW846 8021

PLEASE CONTACT CLIENT SERVICES WITH ANY QUESTIONS. WATER SAMPLES ARE DISPOSED OF 30 DAYS AFTER RECEIPT; SOIL SAMPLES WILL BE DISPOSED OF 6 WEEKS AFTER RECEIPT; WASTE SAMPLES (NON-WATER, NON-SOIL) WILL BE RETURNED 6 WEEKS AFTER RECEIPT. N/T = NOT TESTED, N/A = NOT APPLICABLE, N/D = NOT DETECTED.

@ = ELEVATED DETECTION LIMIT DUE TO MATRIX INTERFERENCE. # = ELEVATED DETECTION LIMIT DUE TO SAMPLE CONCENTRATION. \$ = ELEVATED DETECTION LIMIT DUE TO SAMPLE QUANTITY. + = ELEVATED DETECTION LIMIT DUE TO EXTRACT, VOLUME.

APPROVAL ____



LABORATORY REPORT

PAGE 1

H413 9309398

CS/07/* //

CHAIN OF CUSTODY

HARDING LAWSON ASSOCIATES

ONE TOWER LANE

SUITE 1300 ,IL 60181

OAK BROOK TERRACE

ATTN: MARC SERNEL

SAMPLE

94004-H11093 7(0-8)/SUNDSTRAND/PROJECT # 20603,20.2/SOIL

DATE COLLECTED 12/22/93

DATE RECEIVED 01/04/94

PRESERVED: YES

TEMPERATURE: ON ICE

CONT. INTEGRITY: MEETS STANDARD

SAMPLE INTEG: MEETS STANDARD

TEST NAME	RESULT	UNITS	ANALYZED METHOD LI	[MIT
TETRACHLOROETHYLENE 1,1,1-TRICHLOROETHANE	<0.050 <0.050	PPM PPM	01/05/94 SW846 8021 01/05/94 SW846 8021	

PLEASE CONTACT CLIENT SERVICES WITH ANY QUESTIONS. <u>WATER SAMPLES ARE DISPOSED OF 30 DAYS AFTER RECEIPT; SOIL</u> SAMPLES WILL BE DISPOSED OF 6 WEEKS AFTER RECEIPT; WASTE SAMPLES (NON-WATER, NON-SOIL) WILL BE RETURNED 6 WEEKS AFTER RECEIPT. N/T = NOT TESTED, N/A = NOT APPLICABLE, N/D = NOT DETECTED. = ELEVATED DETECTION LIMIT DUE TO MATRIX INTERFERENCE. # = ELEVATED DETECTION LIMIT DUE TO SAMPLE CONCENTRATION. # = ELEVATED DETECTION LIMIT DUE TO SAMPLE QUANTITY. + = ELEVATED DETECTION LIMIT DUE TO EXTRACT VOLUME. AIHA ACCREDITED APPROVAL ____ \Mu



LABORATORY REPORT

PAGE 1

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CHAIN OF CUSTODY

HARDING LAWSON ASSOCIATES

ONE TOWER LANE

SUITE 1300 ,IL 60181

OAK BROOK TERRACE

ATTN: MARC SERNEL

SAMPLE 94004-H11094 40(0-8)/SUNDSTRAND/PROJECT # 20603,20.2/SOIL

DATE COLLECTED 12/22/93

DATE RECEIVED 01/04/94

PRESERVED: YES

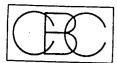
TEMPERATURE: ON ICE

CONT. INTEGRITY: MEETS STANDARD

SAMPLE INTEG: MEETS STANDARD

TEST NAME	RESULT	UNITS	<u>ANALYZED</u>	<u>METHOD</u>	LIMIT
TETRACHLOROETHYLENE 1,1,1-TRICHLOROETHANE	<0.050 <0.050	PPM ·	01/05/94 01/05/94	SW846 8021 SW846 8021	

PLEASE CONTACT CLIENT SERVICES WITH ANY QUESTIONS. WATER SAMPLES ARE DISPOSED OF 30 DAYS AFTER RECEIPT; SOIL SAMPLES WILL BE DISPOSED OF 6 WEEKS AFTER RECEIPT; WASTE SAMPLES (NON-WATER, NON-SOIL) WILL BE RETURNED 6 WEEKS AFTER RECEIPT. N/T = NOT TESTED, N/A = NOT APPLICABLE, N/D = NOT DETECTED.



ENVIRONMENTAL LABORATORIES INC.

Little on hold - Per MATIC Sernel to LRS

CHAIN OF CUSTODY NO.

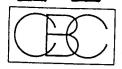
THE PEOPLE WE SERVE . . . CARE ABOUT THE ENVIRONMENT

140 E. RYAN ROAD · OAK CREEK · WI · 53154 · 414-764-7005 · FAX 414-764-0486 · 1-800-422-2195 · CLIENT SERVICES 414-768-7460 Sundstrand P.O.# (5) MAIRIX ANALYSES REQUESTED (METHODS & DETECTION LIMITS) CONTAINERS LAB USE ONLY (3) UST PROJECT NAME/#: 20603, 20. 2 (6) PRESERVATION STATE PCF PROJECT MANAGER: NOR ACCT # -WPDES CICABLE P. SAMPLER: Marcus **NPDES** J. DAME! **RCRA** SOIL
WATER
WASTE
WWATP S മ QUOTE # \mathcal{C} (2) SAMPLE IDENTIFICATION 10/0/ DATE TIME (7) 64 REMARKS 17/12/93 (/e. Holling time 1500AM - 2.4 EM X 11.€ UK, g Dr 1430" FM 110 41155 b 12/22/43 1600 AM 16 e 12/22/43 1530 FM 100 12/21/93 1500 AM 12/11/12/1430 AM 160 12/11/13/1530M 100 i(e IN AMELI, GUNOSIVARALE (8) WORKING DAYS: 1-101 (9) RELINQUISHED BY: DATE TIME RECEIVED BY: DATE TIME 7 1600 * FOR EXPEDITED TURNAROUND TIME CALL CLIENT SERVICES TO CONFIRM AVAILABILITY AT 414-768-7460 12:12:167 71/1 AM EXPEDITED RESULTS TO BE TRANSMITTED VIA: 12/97 Y/w An PHONE 12,0193 4:00 AM FAX NUMBER: (708)571-0437 PHONE NUMBER: (708)571-2162 28/52 AM U'L CONTACT: Marc Serne AM Ph AM (10) DATA PACKAGE OPTIONS AVAILABLE FOR A FEE (PLEASE CIRCLE IF REQUIRED) PACKAGE A SEE BACK FOR COMPLETE PACKAGE DESCRIPTIONS AM AM C AM D FM (11)IN CASE WE HAVE QUESTIONS WHEN SAMPLES ARRIVE, CBC ENVIRONMENTAL LABORATORIES SHOULD CALL: (12) OTHER SPECIAL INSTRUCTIONS: NAME: Marc. Serne PHONE: (708) 57/- 2162 Samples takes on 12/22/93 SEND REPORTS TO:

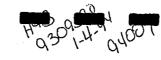


THE PEOPLE WE SERVE . . . CARE ABOUT THE ENVIRONMENT

40 E. RYAN ROAD · OAK CREEK	• WT •	E2354							~ <u></u> (/	TIOMIT	AT.					
40 E. RYAN ROAD · OAK CREEK (1) CLIENT: Sundstrand	MT	23124 • 4]	.4-764	700	5 · F	'AX 414-	764-04	186 •	1-800-	422-21	95 · CI	JENT :	SERVIC	TS 414-	769-7460	
1 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7			S	(5)	MATRI	X ANALY	SES RE	QUEST	ED(MET	HODS &	DETECT	ION L	MITS)		JSE ONLY	
PROJECT NAME/#: 20603, 20 PROJECT MANAGER: Noc De		(3) UST STATE_	CONTAINERS		111	- 1			X /			7	/ /	/	.1,112	
SAMPLER: Marcus for	uniel	NPDES (421 8		SLUDGE	PRESERVATION TYPE	80,0 PC	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \			/ /	/ /		ACCT #	500	7)
	ec_	RCRA	OF C	71 E	P SI	SERVA: TYPE	1/5	3/			/ /			J. DATE	A 6011	
(2) SAMPLE IDENTIFICATION 43 (8-16)	DATE	TIME	CONTROLLING # OF CON	SOI	WASTE WWTP S	PRE		3		/ /				(7)	7-091	40
	12/22/13	1700 M X		X		160			f - f	{		-{	/	RE	MARKS	
\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	12/22/93	1430 PM X	1	X		100	V					-		H0		-
7	2/22/33	X MA COOL		X		ICA	X							<u> HOC</u>		4
40(00)		715 AM		χ		(CC	X				_			170x		4
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		AM IM	+		++-									1100	1)	-
		AM FM	+-+	╅	+	 										1
		AM FM]
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8) TURNAROUND TIME IN WORKIN	G DAVC.	AM PM					-									1
(NODMAT) a -	* * 5 6	* * * 7 8 9	*		(9) RELIN	QUISHE	D BY	DATE	T.M	E RI	CEIVE	D BY:	DATE	TIME	1
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* FOR EXPEDITED TURNAROUND TO CONFIRM AVAILABILITY AT 414 XPEDITED RESULTS TO BE TRANSM	1-768-74 ATTED V	160 /IA: FAX	NVICE D	HUMB 2 IO	-(1	·	17/28/193	11:00	M) (s lu	128/93	しべくしゅん	>
2. Norman. (<u>708) 5 11-0431</u> I	HONE NI	MBER: (708)	571-2	LIL Z	_	-	}				M		.,	1.23, 13	AM	
Serne Serne	į				_				ļ	P	M FM				AM Fr	
O) DATA PACKAGE OPITONS AVAI PLEASE CIRCLE IF REQUIRED) EE BACK FOR COMPLETE PACKAGE	LABLE F	OR A FEE			+				ļ	A	FM M				AM EM	
2) OTHER SUBCLAL TAXABLE			C	D	(1:	1)]	N CASI	3 WE F	HAVE O	1	DNA				AM FM	
2) OTHER SPECIAL INSTRUCTION	s: M	teun	100	er	- NAM	т. М	CBC EN	VIÃO	WĖNTĂI	JESTION LABOR	NHEN ATORIE	SAMPL SHOU	ES ARF LD CAL	CIVE, L:		
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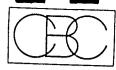
ENVIRONMENTAL LABORATORIES INC.



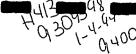
CHAIN OF CUSTODY NO.

THE PEOPLE WE SERVE . . . CARE ABOUT THE ENVIRONMENT

140 E. RYAN ROAD · OAK CREEK · WI · 53154 · 414-764-7005 · FAX 414-764-0486 · 1-800-422-2195 · CLIENT SERVICES 414-768-7460 Sindstrand P.O.# (5) MATRIX ANALYSES REQUESTED (METHODS & DETECTION LIMITS) CONTAINERS LAB USE ONLY (3) UST PROJECT NAME/#: 20603, 20. 2 PRESERVATION STATE SLUDGE PROJECT MANAGER: NO ACCT # |-WPDES J. DATE SAMPLER: / Mucus **NPDES** GRAB SOIL WATER WWASTE WWTP S **RCRA** Q OUOTE 20/05 (2) SAMPLE IDENTIFICATION DATE TIME =h (7) 67 REMARKS (530 AM 10-24 12/12/93 Le. 1500M Holding time V 8 UR, 9 Dr 1430 PM 100 Wiss 60 1600 AM 100 12/22/43 1530 AM PMX 100 15:00 AM 1430 PM X 1530M. 100 718 611 H 11088 160 H 11089 (8) TURNAROUND TIME IN WORKING DAYS: 106 (9) RELINQUISHED BY: DATE TIME RECEIVED BY: DATE TIME 1600 AM 12/2761 * FOR EXPEDITED TURNAROUND TIME CALL CLIENT SERVICES TO CONFIRM AVAILABILITY AT 414-768-7460 EXPEDITED RESULTS TO BE TRANSMITTED VIA: FAX PHONE 77 AM V/or CPT 12/97 12/0193 4:00 AD FAX NUMBER: (708)571-0437 PHONE NUMBER: (708)571-2162 3/4/2 AM 42 T CONTACT: MEN AM (10) DATA PACKAGE OPTIONS AVAILABLE FOR A FEE (PLEASE CIRCLE IF REQUIRED) PACKAGE A SEE BACK FOR COMPLETE PACKAGE DESCRIPTIONS AM В C M D IN CASE WE HAVE QUESTIONS WHEN SAMPLES ARRIVE, CBC ENVIRONMENTAL LABORATORIES SHOULD CALL: (11)(12) OTHER SPECIAL INSTRUCTIONS: NAME: Maic Serne PHONE: (708) 57/- 2162 * Samples tates on 12/21/12 SEND REPORTS TO:



ENVIRONMENTAL LABORATORIES INC.



CHAIN OF CUSTODY NO.

THE PEOPLE WE SERVE . . . CARE ABOUT THE ENVIRONMENT

140 E. RYAN ROAD · OAK CREEK · WI · 53154 · 414-764-7	7005 -	Ελ Υ 414	764 0406	.			
CLIENT: Sundstrand P.O.# 9		TRIX ANALYS	FS RECUEST	1-800-4	122-2195	· CLIENT SERV	ICES 414-768-7460
PROJECT NAME/#: 20603, 20.2 (3) UST	TTT	1 1	(6) /, , ,	7 7		TECTION LIMITS	S) LAB USE ONLY
PROJECT MANAGER: NOT DURING WIPPERS		I ON	1 /\>'\		/ /	/ /	/ ACCT #H413
SAMPLER: Marcin Jemel NPDES (4), 8		SLUDGE R ERVATION TYPE	1 2 4				J. DATE 23302
SAMPLER: March femel NPDES (4) 00 00 00 00 00 00 00 00 00 00 00 00 00	WASTE	WWIP SLUDGE OTHER PRESERVATION TYPE	2013°		/ /		QUOTE #93093
43 8-16 DENTIFICATION DATE TIME 8 3 4 8	W W	₹ 2 K	18 3	/ /		/ / /	(7) REMARKS
12/2/93 17 CO EMX		100	X			H 11090	HOLD
1 1 1 1 X	+++	100	X			H11091	HOLD
7(0-8)		16	X			H 1092	HCY-D
40(0-8) 12/21/1/ 1730 PMX 1 X		10c	X			H1093	HC1-D
AM EM		1°C	X + A			41LE 94	HOLD
AM FM							
AM FM					_		
M FM AM							
PM M							
(8) TURNAROUND TIME IN WORKING DAYS:							
NORMAL) 1 2 3 4 5 6 7 8 9 10		40	QUISHED BY:		TIME	RECEIVED BY	: DATE TIME
* FOR EXPEDITED TURNAROUND TIME CALL CLIENT SERVICES CONFIRM AVAILABILITY AT 414-768-7460 EXPEDITED RESULTS TO BE TRANSMITTED VIA: FAX PHO	m	_ / _	Jemel	12/27/17	600 AM	W W	- 128F3 1120IN
EXPEDITED RESULTS TO BE TRANSMITTED VIA: FAX PHO	ONE		<u>L</u>	12/28/193	11:30 PM	No.la	1/28/43 11:20 FM
TAX NUMBER: (708)571-0439 PHONE NUMBER: (708) COLUMN	62		· · · · · · · · · · · · · · · · · · ·		AM EM		AM
CANTACT: 101 arc Sernel					AM FM AM	,	AM FP
(10) DATA PACKAGE OPITIONS AVAILABLE FOR A FEE (PLEASE CIRCLE IF REQUIRED) PACKAGE A B C SEE BACK FOR COMPLETE PACKAGE DESCRIPTIONS				 			AM FM
	D	(11) I	N CASE WE I	HAVE QU	TM.	THEN SAMPLES 7	MI MI
——————————————————————————————————————	1,	илме: М	arc Sorr	MENTÂL . l	LABORATO	HEN SAMPLES A	
*····		SEND REPOR		Marc.		_ PHONE: (708)571-2162
				1 121	Sernel		

APPENDIX E GEOTECHNICAL ANALYTICAL RESULTS

DRILLHOLE NO.	SAMPLE NO:	SAMPLE DEPTH (0)	SAMPLE DIA (in)	SAMPLE HGT	WATER CONTENT	DEI	NSITY	VOID RATIO	SAT.	UNCO COMI	NFINED RESSION	ΑT	TERBI LIMIT	ERG S	CONS TEST	rass	С	LASSIFICATION
		(11)	(11)	(ln)	(%)	WET (pcf)	DRY (pcf)	(e)		QU (tst)	STRAIN (%)	LL	PL	Pl		#200 SIEVE		
Тор	#10	3-33"	2.85	5.69	14.0	124.6	109.3	0.507	73									
Middle	#10	3-33"	2.85	5.69	24.7	117.2	94.0	0.753	87			32	20	12			CL	S.G. = 2.64
Bottom	#10	3-33"	2.85	5.69	26.9	113.5	89.4	0.843	84									
Тор	#10	33-63"	2.85	4.63	27.7	119.5	93.6	0.803	93									
Middle	#10	33-63"	2.85	1.06	28.1	125.1	97.7	0.727	100			44	20	24			CL	S.G. = 2.70
Bottom	#10	33-63"	2.85	5.69	24.3	124.6	100.2	0.684	96									
Тор	#46	4-34"	2.85	3.63	18.2	130.2	110.2	0.489	98									
Middle	#46	4-34"	2.85	3.81	14.8	133.8	116.6	0.408	95			25	15	10			CL	S.G. = 2.63
Bottom	#46	4-34"	2.85	1.63	17.6	131.5	111.8	0.468	99									,
Тор	#46	34-64"	2.85	5.69	13.8	137.8	121.1	0.376	98						İ			
Middle	#46	34-64"	2.85	2.63	23.8	120.2	97.1	0.716	89			33	23	10			CL	S.G. = 2.67
Bottom	#46	34-64"	2.85	5.69	24.9	116.5	93.2	0.788	84									
Тор	#46	64-94"	2.85	4.63	27.3	121.9	95.8	0.739	99									
Middle	#46	64-94"	2.85	5.69	25.5	120.2	95.8	0.739	92			45	21	24			ČL	S.G. = 2.67
Bottom	#46	64-94"	2.85	5.44	24.5	124.1	99.7	0.671	97									

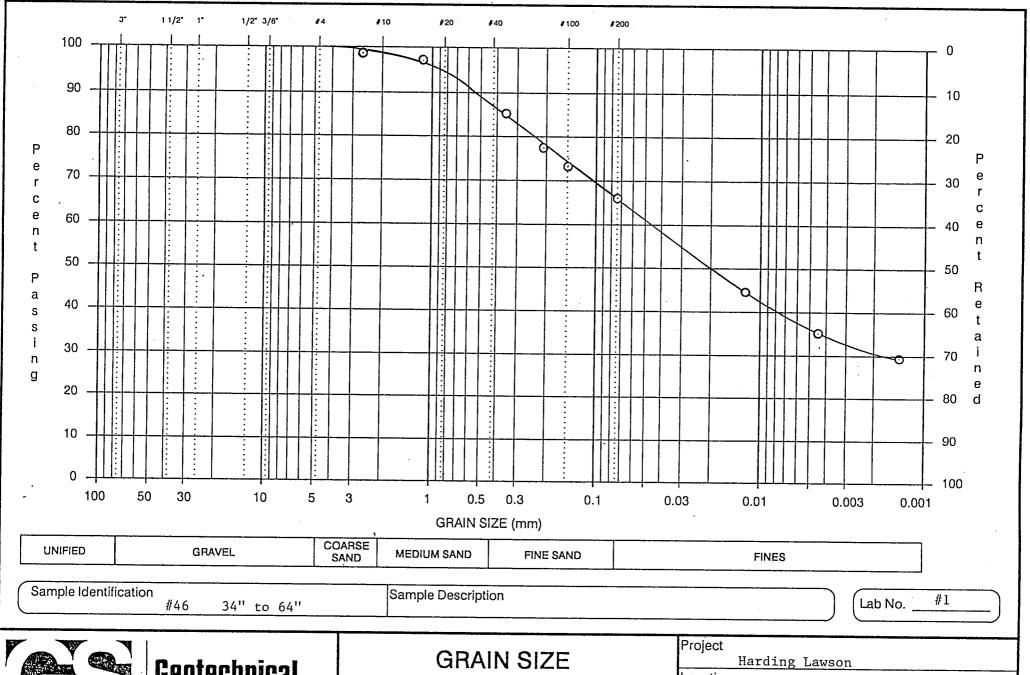


Geotechnical Services Inc.

SUMMARY OF SOIL TESTS

Project:
Location:
Job No.:
Date:

Harding Lawson Ames, Iowa 2106075 1-7-94

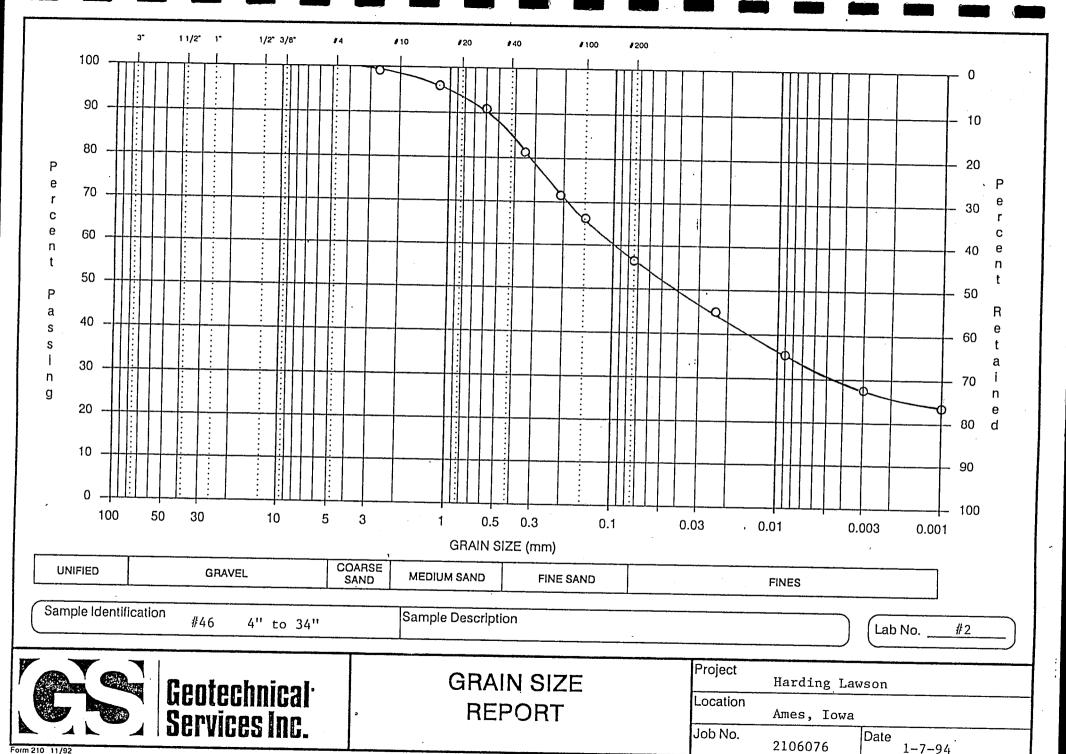




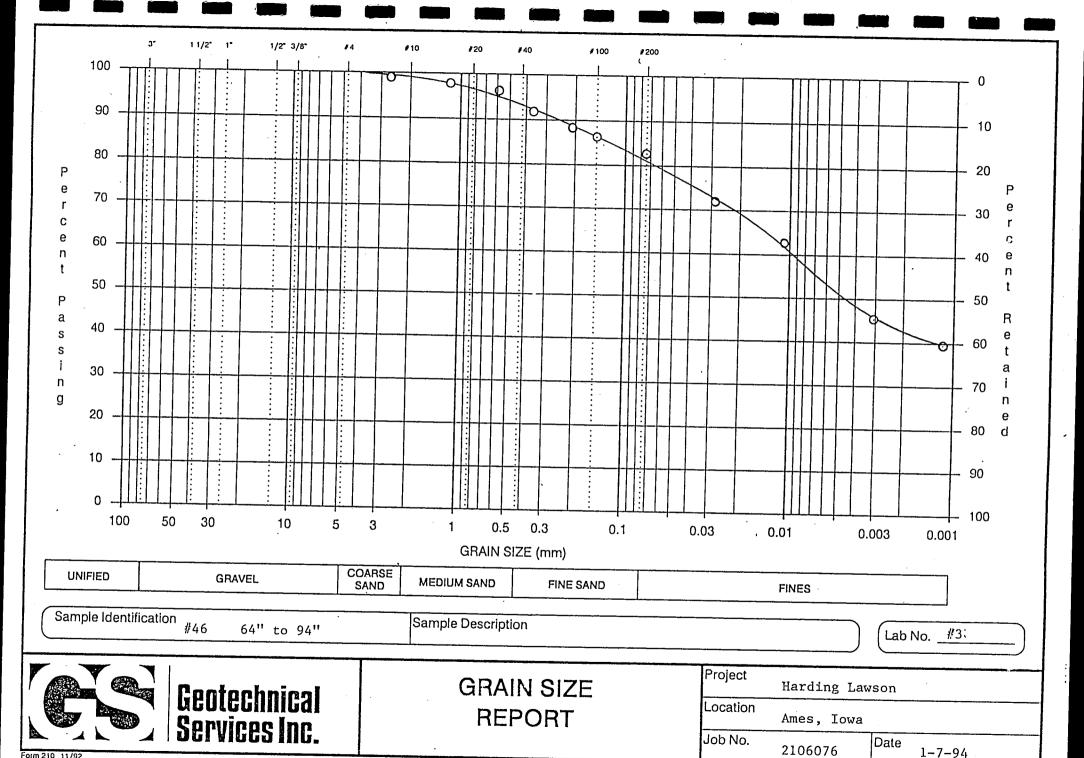
Geotechnical Services Inc. **REPORT**

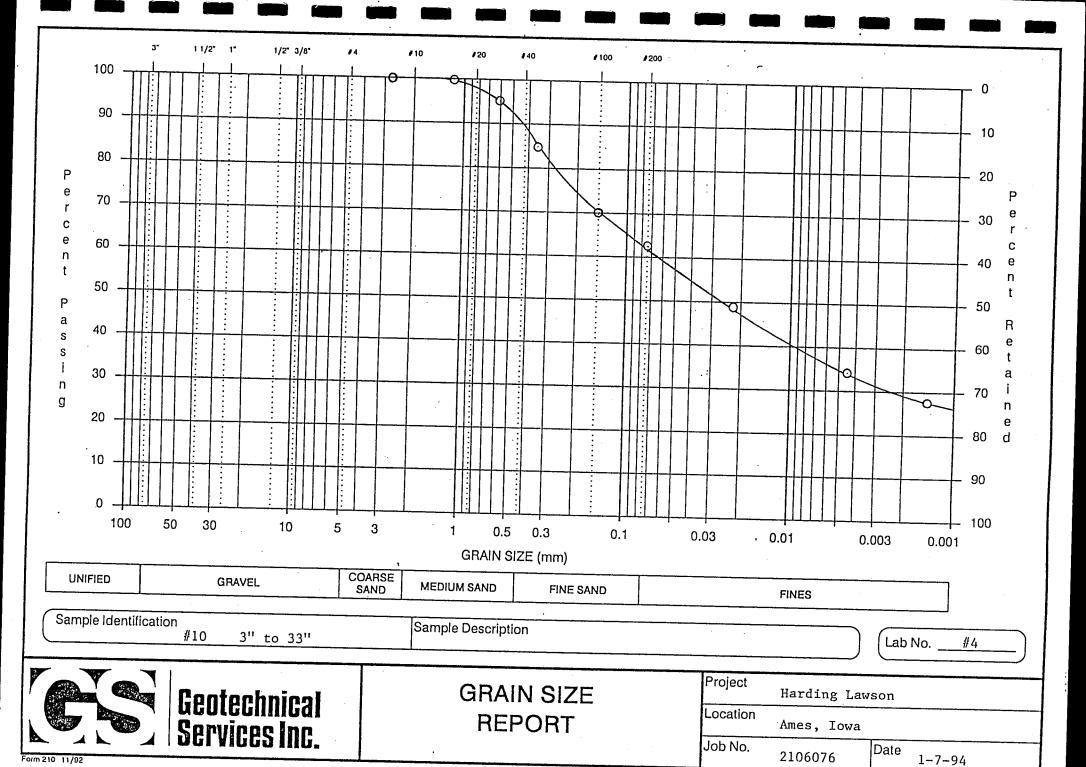
Location Ames, Iowa Job No. Date 2106076 1-7-94

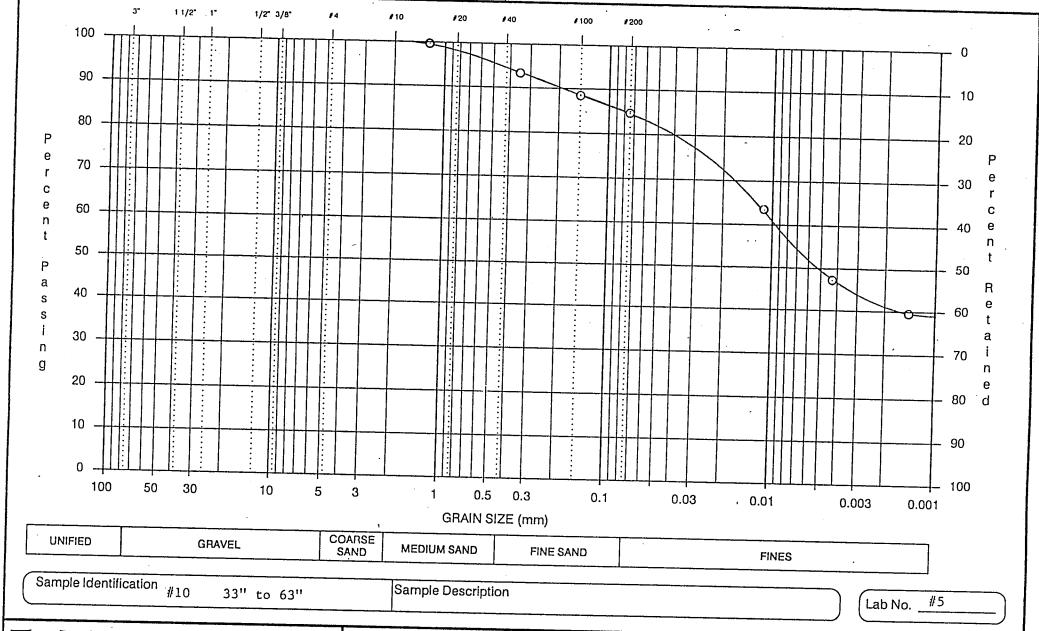
Form 210 11/92



Form 210 11/92









GRAIN SIZE REPORT

Project									
	Harding Lawson								
Location	Ames, Iow	a							
Job No.	2106076	Date	1-7-94						

Form 210 11/92

DISTRIBUTION

Closure Report Interim Status Container Storage Area Sundstrand - Sauer Facility Ames, Iowa

August 12, 1994

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Mr. Scott Moyer

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726 Minnesota

Kansas City, Kansas 66101

Attention:

Mr. Kenneth Herstowski, P.E.

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Sundstrand Aerospace 4949 Harrison Avenue Rockford, IL 61125-7003

Attention:

Ms. Victoria Haines, Esq.

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Attention:

Mr. Robert Miller

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Quality Control Reviewer

William R. Zimmerman, CHMM Principal Environmental Engineer